

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

In the Matter of)	
)	
Internet Protocol Captioned Telephone Service Compensation)	CG Docket No. 22-408
)	
Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities)	CG Docket No. 03-123
)	
Misuse of Internet Protocol Captioned Telephone Service)	CG Docket No. 13-24
)	

REPORT AND ORDER AND ORDER

Adopted: July 31, 2024

Released: July 31, 2024

By the Commission: Commissioners Carr and Simington concurring in part; Commissioner Carr issuing a statement.

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I. INTRODUCTION

1. In this Report and Order, the Federal Communications Commission (Commission) adopts a revised, five-year compensation plan for Internet Protocol Captioned Telephone Service (IP CTS), an important relay service supported by the Interstate Telecommunications Relay Services (TRS) Fund. IP CTS provides functionally equivalent telephone service for individuals with hearing loss, enabling them to both read captions and use their residual hearing to understand a telephone conversation. To ensure that IP CTS providers have the appropriate incentive structure to support captioning with communications assistants (CAs) and with only automatic speech recognition (ASR), we now establish separate compensation formulas for CA-assisted and ASR-only IP CTS. In addition, this compensation plan will give providers certainty regarding the applicable compensation levels, provide an incentive to improve efficiency, and allow the Commission an opportunity to timely reassess the compensation formulas in response to potential unanticipated cost changes and other significant developments.

2. While IP CTS historically has involved the participation of a communications assistant (CA) in the captioning process, IP CTS providers are increasingly producing telephone captions using only an automatic speech recognition (ASR) program—without any help from a CA. Although the unit cost of producing captions is substantially lower when a CA is not involved, usage data show that some consumers continue to prefer CA-assisted captions when given a choice, and there also is evidence that, for some calls, CA-assisted captioning is still the most accurate method. Therefore, under the revised compensation plan, providers will be paid different per-minute amounts for CA-assisted and ASR-only IP CTS, reflecting that there is a significant difference in the average cost of captioning under each method.

3. For CA-assisted service, the current blended compensation rate of \$1.30 per minute is increased to \$1.35 per minute for the remainder of the 2024-25 Fund Year (i.e., from the first day of the first month after the effective date of this Report and Order through June 30, 2025) and is subject to an inflation adjustment at the beginning of each subsequent year of the period, based on an adjustment factor that is a reasonable proxy for changes in the cost of CA-assisted IP CTS. In addition, we allow the application of a higher CA-assisted rate to minutes of CA service handled by CAs whose hourly wages meet or exceed the minimum wage for federal contractors.¹

4. For ASR-only service, we take steps to transition toward a cost-based rate, allowing providers time to adapt their operations to the rate change. The initial ASR-only rate, applicable through June 30, 2025, will be \$1.17, a 10% reduction from the current blended rate of \$1.30 per minute. This rate will be reduced by approximately 10% in the two succeeding years, to \$1.05 in 2025-26 and \$0.95 in 2026-27, and will remain at \$.95 for the remainder of the compensation period.

5. By maintaining an economic incentive for IP CTS providers to use CA-assisted captioning when warranted or when selected by the consumer, we ensure the continued availability of CA-assisted captioning, which research indicates may be essential to provide functionally equivalent service for a substantial portion of IP CTS calls.

¹ See Letter from John T. Nakahata, Counsel to CaptionCall, LLC (CaptionCall), to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 4-5 (filed July 1, 2024) (CaptionCall July 1 *Ex Parte*).

6. In this Report and Order, we also address one discrete issue regarding Internet Protocol Relay Service (IP Relay)—the allowability of research and development expenses—that was raised but not resolved in the Commission’s 2022 Report and Order on IP Relay compensation.²

II. BACKGROUND

A. IP CTS

7. Section 225 of the Communications Act of 1934, as amended (the Act), requires the Commission to ensure that TRS are available to persons who are deaf, hard of hearing, or deafblind or have speech disabilities, “to the extent possible and in the most efficient manner.”³ TRS are defined as “telephone transmission services” enabling such persons to communicate by wire or radio “in a manner that is functionally equivalent to the ability of a hearing individual who does not have a speech disability to communicate using voice communication services.”⁴

8. IP CTS, a form of TRS, “permits an individual who can speak but who has difficulty hearing over the telephone to use a telephone and an [IP]-enabled device via the Internet to simultaneously listen to the other party and read captions of what the other party is saying.”⁵ IP CTS is supported entirely by the TRS Fund, to which telecommunications carriers and Voice over Internet Protocol (VoIP) service providers must contribute based on a percentage of each company’s annual end-user revenue.⁶ IP CTS providers receive monthly payments from the TRS Fund to compensate them for the reasonable cost of providing the service, in accordance with a per-minute compensation formula approved by the Commission.⁷

9. Before 2020, IP CTS captions were produced by a CA, usually with the CA repeating (“revoicing”) a caller’s speech into an ASR program, which then converted the CA’s speech to text.⁸ In

² See *infra* para. 36; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Petition for Rulemaking of Sprint Corporation*, CG Docket No. 03-123, RM-11820, Report and Order, 37 FCC Rcd 8009, 8019, para. 26 (2022) (*2022 IP Relay Compensation Order*) (deferring resolution of this issue with respect to IP Relay).

³ 47 U.S.C. § 225(b)(1).

⁴ *Id.* § 225(a)(3); 47 CFR § 64.601(a)(43).

⁵ 47 CFR § 64.601(a)(23). “With IP CTS, the connection carrying the captions between the relay service provider and the relay service user is via the internet rather than the public switched telephone network.” *Id.*

⁶ See 47 CFR § 64.604(c)(5)(iii)(A); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Internet-based Captioned Telephone Service*, CG Docket No. 03-123, Declaratory Ruling, 22 FCC Rcd 379, 390, para. 25 (2007) (*2007 IP CTS Declaratory Ruling*); *Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 13-24 and 03-123, Report and Order, 34 FCC Rcd 11265 (2019) (*2019 IP CTS Contributions Order*).

⁷ See 47 CFR § 64.604(c)(5)(iii)(E). The TRS Fund administrator reviews monthly compensation requests and supporting information submitted by providers of IP CTS and other forms of TRS and makes monthly payments of compensation in accordance with the applicable formula.

⁸ See *2007 IP CTS Declaratory Ruling*, 22 FCC Rcd at 383, para. 8. Since 2014, one IP CTS provider has used Communications Access Realtime Translation (CART), in which a stenographer types the captions without any help from an ASR program. See *Notice of Conditional Grant of Application of Miracom USA, Inc., for Certification as a Provider of Internet Protocol Captioned Telephone Service Eligible for Compensation from the Telecommunications Relay Services Fund*, CG Docket Nos. 03-123, 10-51, and 13-24, Public Notice, 29 FCC Rcd 5105, 5106 (CGB 2014) (*InnoCaption Conditional Certification*). In another variant of CA-assisted IP CTS, the initial caption may be produced by applying ASR directly to the caller’s speech (as in ASR-only IP CTS), with CA revoicing being used as necessary to correct mistakes. See, e.g., Letter from David A. O’Connor, Counsel to Hamilton Relay, Inc. (Hamilton), to Marlene H. Dortch, FCC, CG Docket Nos. 13-24 and 03-123, at 2 (filed Apr. 9, 2021) (Hamilton)

(continued....)

2018, the Commission ruled that IP CTS also could be provided on a fully automatic basis, using only ASR technology to generate captions, without the participation of a CA.⁹ Pursuant to certifications issued by the Consumer and Governmental Affairs Bureau (CGB or Bureau) beginning in 2020, every IP CTS provider is now authorized to use the ASR-only mode to generate captions—either as an alternative to CA-assisted captioning or as its sole mode of providing IP CTS.¹⁰ Among those that use both captioning methods, two providers (Hamilton and InnoCaption) allow users to choose the captioning method they prefer, while two other providers (CaptionCall and ClearCaptions) do not offer such a choice.¹¹ In 2020, the Commission issued a Further Notice of Proposed Rulemaking proposing to include metrics in the minimum TRS standards for IP CTS and seeking comment on how best to measure the performance of the various captioning methods now available.¹² That Further Notice remains pending.

(Continued from previous page) _____

Apr. 9, 2021 *Ex Parte*) (“[C]ombining the dynamic use of ASR with a CA, in order to allow the voice of the CA or the other party to be directed to the ASR engine, significantly decreased delays in captioning.”).

⁹ *Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 13-24 and 03-123, Report and Order, Declaratory Ruling, Further Notice of Proposed Rulemaking, and Notice of Inquiry, 33 FCC Rcd 5800, 5827, para. 48 (2018) (*2018 IP CTS Compensation Order*).

¹⁰ *See Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Memorandum Opinion and Order, 35 FCC Rcd 4568 (CGB 2020); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Memorandum Opinion and Order, 35 FCC Rcd 5635 (CGB 2020); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Misuse of Internet Protocol (IP) Captioned Telephone Service*, CG Docket Nos. 03-123 and 13-24, Memorandum Opinion and Order, 35 FCC Rcd 14193 (CGB 2020); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Memorandum Opinion and Order, 36 FCC Rcd 7246 (CGB 2021); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, 36 FCC Rcd 13241 (CGB 2021) *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Memorandum Opinion and Order, DA 22-442 (CGB Apr. 20, 2022). In January 2024, the Bureau released orders with conditional certifications to four new entrants to provide ASR-only IP CTS service. *See Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, DA 24-48 (CGB Jan. 17, 2024) (Rogervoice); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, DA 24-49 (CGB Jan. 17, 2024) (NexTalk, Inc.); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, DA 24-11 (CGB Jan. 4, 2024) (Global Caption, Inc.); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, DA 24-12 (CGB Jan. 4, 2024) (Nagish, Inc.).

¹¹ *See* Comments of ClearCaptions, LLC (ClearCaptions) at 29-30 (filed Mar. 7, 2023) (ClearCaptions Comments) (explaining how it utilizes AI technology to select whether a call is best handled by an ASR or CA, rather than relying on users to choose); Comments of CaptionCall at 14, 22 (filed Mar. 7, 2023) (supporting, but needing to develop the ability for users to switch between CA-based captioning and ASR); Comments of Mezmo Corporation dba InnoCaption (InnoCaption) at 6 (filed March 7, 2023) (InnoCaption Comments); Letter from David A. O’Connor, Counsel to Hamilton, to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, Attach. at 10 (filed Nov. 24, 2023) (Hamilton Nov. 24 *Ex Parte*).

¹² *Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service Program*, CG Docket Nos. 13-24, 03-123, and 10-51, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 35 FCC Rcd 10866, 10897-906, paras. 62-92 (2020) (*2020 IP CTS Compensation Order* or *Telephone Caption Metrics Notice*).

B. IP CTS Compensation

10. Before 2018, compensation for IP CTS providers was determined by a proxy method, known as the Multistate Average Rate Structure (MARS) methodology, in which compensation was set equal to the average per-minute payment by state TRS programs to providers of an analogous service, Captioned Telephone Service (CTS).¹³ In 2018, the Commission determined that this approach had resulted in providers receiving compensation substantially higher than the industry average cost to provide IP CTS.¹⁴ Therefore, the Commission adopted a different methodology, setting compensation based on the weighted average of the actual allowable costs reported by providers (that is, total allowable expenses of all providers divided by total IP CTS minutes).¹⁵ As a transitional measure, the Commission reduced the compensation rate by approximately 10% annually so that, over a four-year period, it would reach the estimated level of providers' average allowable costs (plus a 10% operating margin).¹⁶ As a result, compensation for IP CTS decreased from \$1.9467 per minute in Fund Year 2017-18 to \$1.30 per minute in Fund Year 2021-22.¹⁷

11. In the *2020 IP CTS Compensation Order*, the Commission considered whether to adopt a separate compensation formula for calls captioned without CA involvement, to address what appeared to be the substantially lower average cost of ASR-only captioning. However, the Commission concluded it did not yet have sufficient data from the provision of fully automatic IP CTS to accurately estimate the relevant costs.¹⁸ In June 2022, the Bureau waived the June 30, 2022 expiration of the \$1.30 per-minute compensation formula, extending it to June 30, 2023.¹⁹

12. On December 22, 2022, the Commission released a Notice of Proposed Rulemaking seeking comment on establishing a revised IP CTS compensation plan.²⁰ The Commission proposed to apply different compensation formulas to the provision of CA-assisted and ASR-only IP CTS and sought comment on additional issues potentially affecting the compensation formulas, including the appropriate application of such formulas; identifying the costs attributable to ASR-only captioning; whether to adjust certain allowable-cost criteria and the allowed operating margin; calculation of average per-minute cost and compensation level(s); the duration of the compensation period; adjustment factors for inflation or productivity; and alternatives to reasonable-cost-based compensation.²¹ The Commission received

¹³ With CTS, telephone captioning is provided through the public switched telephone network (PSTN). See *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 96-67, Declaratory Ruling, 18 FCC Rcd 16121, 16122-23, paras. 3-5 (2003).

¹⁴ *2018 IP CTS Compensation Order*, 33 FCC Rcd at 5809-10, para. 18.

¹⁵ *Id.* at 5814-15, paras. 23-24 (applying average-cost methodology on an interim basis); *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10870, para. 10 (adopting average-cost methodology for IP CTS). In this Report and Order, references to "average" cost refer to a weighted average.

¹⁶ *2018 IP CTS Compensation Order*, 33 FCC Rcd at 5815, para. 24; *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10870-71, para. 11.

¹⁷ *2018 IP CTS Compensation Order*, 33 FCC Rcd at 5816, para. 26; *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10870-71, para. 11.

¹⁸ *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10887, paras. 41-42.

¹⁹ *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service Program*, CG Docket Nos. 03-123 and 10-51, Order, 37 FCC Rcd 7667, 7670-71, paras. 11-14 (CGB 2022) (*2022 TRS Funding Order*).

²⁰ *Internet Protocol Captioned Telephone Service Compensation; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Misuse of Internet Protocol (IP) Captioned Telephone Service*, CG Docket Nos. 22-408, 03-123, and 13-24, Notice of Proposed Rulemaking and Order on Reconsideration, 37 FCC Rcd 15243, 15247, para. 12 (2022) (*Notice*).

²¹ *Id.*

comments from five providers of IP CTS; a coalition of accessibility advocates and researchers; and Ultratec, which operates a captioning platform used by one IP CTS provider.²² Reply comments were filed by three IP CTS providers; one individual; and Hearing Loss LIVE!, a hearing loss support organization.²³ Two outside consultants for IP CTS providers submitted rate analyses.²⁴

13. On May 1, 2023, the TRS Fund administrator submitted estimates to the Commission of the average cost and demand for CA-assisted and ASR-only IP CTS, based on individual providers' reports (filed in February 2023) of historical cost and demand for calendar years 2021 and 2022 and projected cost and demand for 2023 and 2024.²⁵ Later in 2023, the Bureau placed in the record the individual providers' cost and demand data underlying the administrator's estimates.²⁶ IP CTS providers and others made additional *ex parte* submissions addressing the cost and demand data.²⁷ Noting that the establishment of a compensation plan for IP CTS is inherently complex and that the filing of updated cost data would enable the Commission to consider additional relevant information—especially regarding the cost of ASR-only service—the Bureau extended the current compensation rate through June 30, 2024.²⁸

²² All comments were filed on March 7, 2023, in CG Docket Nos. 22-408, 03-123, and 13-24. *See* CaptionCall Comments; Comments of CaptionMate, LLC (CaptionMate Comments); Comments of Hearing Loss Association of America (HLAA), Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), Communication Service for the Deaf (CSD), National Association of the Deaf (NAD), Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC) (AARO Comments); Comments of Ultratec, Inc. and Captel, Inc. (Ultratec Comments); Comments of Hamilton (Hamilton Comments); ClearCaptions Comments; InnoCaption Comments.

²³ All reply comments were filed on April 3, 2023, in CG Docket Nos. 22-408, 03-123, and 13-24. *See* Marc Safman Reply Comment; ClearCaptions Reply Comments (ClearCaptions Reply); Hearing Loss LIVE! Reply Comments (HLL Reply); Reply Comments of CaptionCall (CaptionCall Reply); Reply Comments of Hamilton (Hamilton Reply).

²⁴ *See* FTI Consulting, Inc., "IP CTS Rates Analysis Expert Report" (Apr. 3, 2023), attached to Letter from Tamar Finn, Counsel to ClearCaptions, LLC, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (rec. Apr. 3, 2023) (FTI Rate Analysis); The Brattle Group, "IP CTS Costs and Reimbursement Rates: Comments on FCC's NPRM" (Mar. 6, 2023) (Brattle Report), attached to Hamilton Comments.

²⁵ *See* Rolka Loube Associates LLC, Interstate Telecommunications Relay Services Fund: Payment Formula and Fund Size Estimate, CG Docket Nos. 03-123 and 10-51, Exhs. 1-3, 1-3.a, 1-3.b (filed by CGB, May 1, 2023) (2023 TRS Fund Report).

²⁶ *See* Letter from Michael Scott, CGB, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, with Attachment (confidential) (filed Nov. 6, 2023) (Initial Cost and Demand Reports).

²⁷ *See, e.g.,* Letter from David A. O'Connor, Counsel to Hamilton, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 13-24, and 03-123 (filed Dec. 8, 2023) (Hamilton Dec. 8 *Ex Parte*); Letter from Scott D. Delacourt, Counsel to CaptionMate, LLC (CaptionMate), to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 13-24, and 03-123 (filed Dec. 6, 2023) (CaptionMate Dec. 6 *Ex Parte*); Letter from John T. Nakahata, Counsel to CaptionCall, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 13-24, and 03-123 (filed Nov. 21, 2023) (CaptionCall Nov. 21 *Ex Parte*); Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 13-24, and 03-123 (filed Nov. 9, 2023).

²⁸ *See Internet Protocol Captioned Telephone Service Compensation; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Misuse of Internet Protocol (IP) Captioned Telephone Service*, CG Docket Nos. 22-408, 03-123, and 13-24, Order, DA 23-1189 (CGB Dec. 20, 2023) (*December 2023 Extension Order*); *see also Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Internet Protocol Captioned Telephone Service Compensation*, CG Docket Nos. 03-123 and 10-51, Order, DA 23-1091 (Nov. 17, 2023) (*November 2023 Extension Order*); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service*, CG Docket Nos. 03-123 and 10-51, Order, DA 23-577, para. 17 (June 30, 2023) (*2023 TRS Funding Order*).

14. On April 16, 2024, the Bureau placed in the record the February 2024 reports of seven individual providers, showing historical cost and demand for calendar years 2022 and 2023 and projected cost and demand for 2024 and 2025.²⁹ These were supplemented on May 21 with a cost and demand filing by an eighth provider and an updated report by one of the original seven filing providers.³⁰ The individual providers' cost and demand data are deemed confidential and may be accessed by eligible persons pursuant to the *Third Protective Order* in this docket.³¹

15. On May 1, 2024, the TRS Fund administrator submitted updated estimates of average overall IP CTS cost and demand for calendar years 2022 through 2025, based on the providers' February 2024 reports.³² On May 21, the Bureau placed into the record cost and demand totals for ASR-only and CA-assisted IP CTS, respectively, for the same calendar years, aggregated from the providers' initial and supplemental reports.³³

16. IP CTS providers made additional *ex parte* submissions addressing the updated cost and demand data.³⁴

C. Related Matters

17. On December 23, 2021, Sorenson Communications, LLC (Sorenson), filed a petition seeking a declaratory ruling that (1) costs associated with a Video Relay Service (VRS) provider's field staff are allowable to the extent the staff are performing tasks that are service related and not user equipment related; and (2) field staff time is an allowable cost of providing VRS even when it is part of a longer visit during which staff may perform equipment installation and maintenance.³⁵ In response to a

²⁹ Letter from Michael Scott, CGB, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, with Attachment (filed Apr. 16, 2024) (Updated Cost and Demand Reports) (confidential). The five providers certified for IP CTS prior to January 2024 submitted historical cost for 2021 and 2022 and projected cost for 2023 and 2024. Two of the four providers newly certified in January 2024 submitted projections of cost and demand.

³⁰ Letter from Michael Scott, CGB, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, with Attachment (filed May 21, 2024) (May 21 Cost and Demand Supplements) (confidential).

³¹ *Telecommunications Relay Services and Speech-to Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service Program; Misuse of Internet Protocol (IP) Captioned Telephone Service*, CG Docket Nos. 03-123, 10-51, and 13-24, Order and Third Protective Order, 33 FCC Rcd 6802 (CGB 2018).

³² Rolka Loube Associates LLC, Interstate Telecommunications Relay Services Fund: Payment Formula and Fund Size Estimate, CG Docket Nos. 03-123 and 10-51, Exhs. 1-3, 1-3.a, 1-3.b (filed by CGB, May 6, 2024) (2024 TRS Fund Report).

³³ Letter from Michael Scott, CGB, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, with Attachment (confidential) (filed May 21, 2024) (ASR-Only and CA-Assisted Cost and Demand Totals).

³⁴ See, e.g., Letter from David A. O'Connor, Counsel to Hamilton, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed June 6, 2024) (Hamilton June 6 *Ex Parte*); Letter from Cristina O. Duarte, InnoCaption, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed June 6, 2024) (InnoCaption June 6 *Ex Parte*); Letter from John T. Nakahata, Counsel to CaptionCall, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed June 3, 2024) (CaptionCall June 3 *Ex Parte*); Letter from Scott D. Delacourt, Counsel to CaptionMate, to Marlene H. Dortch FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed May 22, 2024) (CaptionMate May 22 *Ex Parte*); Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed May 20, 2024) (ClearCaptions May 20 *Ex Parte*).

³⁵ Petition of Sorenson Communications, LLC for Declaratory Ruling, CG Docket Nos. 10-51 and 03-123, at 1-2 (filed Dec. 23, 2021), <https://www.fcc.gov/ecfs/document/122330636542/1> (Sorenson Field Staff Petition).

public notice seeking comment on Sorenson's petition,³⁶ two IP CTS providers supported the petition and requested that the Commission apply the same treatment to field staff costs incurred by IP CTS providers.³⁷

18. In the *2023 VRS Compensation Order*, responding to Sorenson's petition, the Commission reaffirmed that, because the costs of installing, maintaining, and training customers to use provider-distributed devices (or software for proprietary provider-distributed devices) are not recoverable through TRS Fund compensation, expenses for field staff visits for such purposes are not allowable expenses.³⁸ In addition, the Commission clarified that the reasonable cost of *service*-related work performed by field staff during a visit to a new or current user (e.g., to assist customers with registration, use of VRS on a non-proprietary device, or completing a port) is an allowable cost of providing VRS.³⁹ The Commission stated that these clarifications also apply to field staff costs incurred by IP CTS providers.⁴⁰

III. REPORT AND ORDER

A. Separate Rates for CA-Assisted and ASR-Only IP CTS

1. Need for Separate Rates

19. We amend our rules to establish separate rates for CA-assisted and ASR-only IP CTS. We recognize that, historically, while the Commission has applied separate compensation rates to different relay *services*,⁴¹ the Commission has rarely applied separate rates to different *methods* of

³⁶ *Comment Sought on Petition for Declaratory Ruling Filed by Sorenson Communications, LLC, on Video Relay Service Cost Allocation Methodologies*, CG Docket Nos. 03-123 and 10-51, Public Notice, 36 FCC Rcd 18230 (CGB 2021).

³⁷ See ClearCaptions, LLC Field Staff Comments, CG Docket Nos. 03-123 and 10-51 (filed Jan. 10, 2022); Hamilton Relay, Inc. Field Staff Comments, CG Docket Nos. 03-123 and 10-51 (filed Jan. 10, 2022).

³⁸ *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service Program*, CG Docket Nos. 03-123 and 10-51, Report and Order and Further Notice of Proposed Rulemaking, FCC 23-78, para. 49 (Sept. 28, 2023) (*2023 VRS Compensation Order*).

³⁹ *Id.*

⁴⁰ *Id.*, para. 50.

⁴¹ See, e.g., *Telecommunications Services for Individuals with Hearing and Speech Disabilities; Recommended TRS Cost Recovery Guidelines; Request by Hamilton Telephone Company for Clarification and Temporary Waivers*, CC Docket No. 98-67, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 22948, 22954-55, para. 17 (2001) (*2001 TRS Rate Methodology Order*) (directing the TRS Fund administrator to develop a separate rate for speech-to-speech relay service (STS); *id.* at 22953, para. 13 (adopting a separate rate for VRS); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Order, 20 FCC Rcd 12237, 12242-43, para. 14 (2005) (concluding that it was no longer appropriate to apply a single rate to traditional TRS and IP Relay, because compensation "should reflect the cost and demand data unique to those services"). On a number of occasions, however, the Commission has applied a single rate to multiple *services* where it could not discern a material difference in their per-minute costs, or there was insufficient information to calculate a specific rate for a new service. *2001 TRS Rate Methodology Order* 16 FCC Rcd at 22953, para. 13 (applying the same interstate rate to Spanish- and English-language relay services "[b]ecause there is no evidence in the record that Spanish relay costs will differ significantly from English relay costs"); *Provision of Improved Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Declaratory Ruling and Second Further Notice of Proposed Rulemaking, 17 FCC Rcd 7779, 7786, para. 22 (2002) (*IP Relay Declaratory Ruling*) (directing that IP Relay be compensated at the same rate as traditional TRS); *2007 IP CTS Declaratory Ruling*, 22 FCC Rcd at 390, para. 26 (applying the IP Relay rate to IP CTS); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Report and Order and Declaratory Ruling, 22 FCC Rcd 20140, 20156, para. 34 (2007) (*2007 TRS Rate Order*) (compensating STS (apart from an

(continued....)

providing a *single* relay service.⁴² In this instance, however, the record supports the Commission’s initial view that special considerations warrant the application of different compensation formulas to the CA-assisted and ASR-only modes of providing IP CTS. As discussed below: (1) there is a substantial difference between the per-minute costs of ASR-only and CA-assisted IP CTS; (2) for some IP CTS calls, CA-assisted captioning is preferred by consumers; and (3) a single compensation rate creates an incentive for providers to use the lower-cost ASR-only mode, even for calls where a user could benefit from CA involvement.⁴³ The record also supports the concern that continued application of a single formula may lead to waste of TRS Fund resources and increase the risk of fraud and abuse.⁴⁴ Deferring the adoption of separate formulas, as some commenters urge,⁴⁵ would prolong the adverse effects of the single rate and discourage providers from continuing to offer CA-assisted captioning, reducing the availability of a service mode that continues to be preferred for some calls.

20. *Cost Difference.* The updated cost reports confirm that there is a substantial cost difference between ASR-only and CA-assisted IP CTS.⁴⁶ For 2023, historical allowable expenses reported by providers average approximately \$0.60 per minute for ASR-only IP CTS and \$1.04 per minute for CA-assisted IP CTS, a cost difference of \$0.44 per minute.⁴⁷ For 2024, providers’ projected allowable expenses average approximately \$0.65 per minute for ASR-only IP CTS and \$1.32 per minute for CA-assisted IP CTS, a cost difference of \$0.67 per minute.⁴⁸

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outreach supplement) at the same rate as traditional TRS); *id.* at 20158, para. 38 (compensating IP CTS at the same rate as CTS).

⁴² The Commission recently adopted a separate per-minute additive to VRS compensation that is only applicable to Video-Text Service, a variant of VRS. *See 2023 VRS Compensation Order*, paras. 104-07. This service is designed to serve a specific subgroup of the eligible population—people who are deafblind and are able to sign to a VRS CA in American Sign Language (ASL) but unable to see well enough to read the CA’s signing of the other party’s speech. *Id.*, paras. 25, 105. Although Video-Text Service is provided on a VRS platform, the output of the service is significantly different from ordinary VRS: With Video-Text Service, the deafblind user signs in ASL to the CA, but the CA converts the other party’s speech to text, not ASL. *Id.*, para. 105.

⁴³ *See Notice*, 37 FCC Rcd at 15248-49, paras. 15-16; Letter from Howard Rosenblum, NAD, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 13-24, and 03-123 at 2 (filed Oct. 17, 2023) (Accessibility Advocates Oct. 17, 2023 *Ex Parte*) (expressing concerns that a single rate has “already had adverse effects for the provision of human-generated captioning, which has higher cost due to the use of paid personnel to generate the captioning” and sharing the groups’ “fear that any improperly assessed rate for IP CTS would drive out all human-generated captioning”).

⁴⁴ *See Notice*, 37 FCC Rcd at 15250, para. 18.

⁴⁵ *See, e.g.*, CaptionMate Comments at 7 (contending that certain relevant costs are currently disallowed); Ultratec Comments at 15-17 (arguing that compensation should not be revised until TRS metrics are in place); InnoCaption Comments at 2-5 (asserting that there is insufficient experience with ASR-only IP CTS to provide reliable cost data). Hamilton, which previously sought a one-year deferral of any bifurcated compensation plan, Hamilton Comments at 2-8, now supports bifurcation of the compensation rate, as do CaptionCall and ClearCaptions. *See* Hamilton June 6 *Ex Parte* at 2; CaptionCall June 2 *Ex Parte* at 1; ClearCaptions May 22 *Ex Parte*, Attach. at 9; Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 1 (filed Dec. 5, 2023) (ClearCaptions Dec. 5 *Ex Parte*).

⁴⁶ Although some commenters disagree with certain allowable-cost criteria or with some providers’ cost accounting practices, *see, e.g., infra* Part III.B.3, no commenter disputes that there is a substantial cost difference between the two modes of service.

⁴⁷ *See 2023 TRS Fund Report*, Exhs. 1-3.a, 1-3.b. (Note that in these exhibits, there is no line for average expenses. Average per-minute expenses are derived by subtracting “Operating Margin” from “Total Cost.”)

⁴⁸ *See ASR-Only and CA-Assisted Cost and Demand Totals.*

Table 1⁴⁹

Per-Minute Cost and Compensation for IP CTS at the Current Compensation Rate

	2023 ⁵⁰			2024 ⁵¹		
	Share of Minutes	Expenses per Minute	Operating Margin ⁵²	Share of Minutes	Expenses per Minute	Operating Margin
ASR-only	74.6%	\$0.60	116.7%	84.5%	\$0.65	100.0%
CA-assisted	25.4%	\$1.04	25.0%	15.5%	\$1.32	-1.5%
Combined ⁵³	100.0%	\$0.72	80.6%	100.0%	\$0.75	73.3%

21. *Benefits of CA-Assisted Service.* The record also confirms that, while consumers increasingly select ASR-only captioning when offered a choice,⁵⁴ CA-assisted captioning continues to be preferred for some portion of IP CTS calls.⁵⁵ Further, some research indicates that ASR technology may show algorithmic bias in the accuracy with which it transcribes voices and that the participation of CAs may improve the accuracy of captioning for a substantial portion of calls.⁵⁶ Establishing separate formulas that better reflect the cost difference between ASR-only and CA-assisted service will strengthen the incentive for providers to continue providing CA-assisted captions when preferred by the consumer or needed for high-quality service.⁵⁷ Conversely, maintaining a single rate is likely to reinforce what

⁴⁹ See *id.*

⁵⁰ Percentages and per-minute averages for 2023 reflect the historical costs reported by the five IP CTS providers that provided compensated IP CTS in 2023. Historical cost submitted by a provider certified in January 2024, which was *not* compensated for service provided in 2023, is not included in the 2023 statistics.

⁵¹ Percentages and amounts for 2024 reflect cost projections reported by the five IP CTS providers that provided compensated IP CTS in 2023 and by two of the four providers newly certified in January 2024. Updated Cost and Demand Reports (confidential); May 21 Cost and Demand Supplements (confidential). Two of the newly certified providers did not report projected cost at the time the Bureau submitted the Updated Cost and Demand Reports to the record. The minutes of demand projected by the excluded providers comprise less than {[]}% of total projected 2024 demand. Updated Cost and Demand Reports (confidential); May 21 Cost and Demand Supplements (confidential).

⁵² The operating margin is calculated by subtracting per-minute expenses from the current per-minute rate and dividing the result by per-minute expenses. For example, the 2023 operating margin for ASR-only IP CTS is $(\$1.30 - \$0.60)/\$0.60 = 1.167$ or 116.7%.

⁵³ This row shows the weighted average of reported expenses per minute for IP CTS as a whole.

⁵⁴ See Updated Cost and Demand Reports (confidential).

⁵⁵ See Ultratec Comments at 17-19; Hamilton Comments at 8-12; AARO Comments at 3-4.

⁵⁶ See *Notice*, 37 FCC Rcd at 15248-49, para. 16 (noting that “a 2020 study of speech recognition systems from five major tech companies found that the systems misidentified words spoken by black individuals at a substantially higher rate than words spoken by white people”); Hamilton Comments at 8-12 (arguing that all IP CTS providers should offer CA-based service for certain calls); CaptionCall Comments at 13, 20-23 (asserting that continued investment and improvement of ASR through research and development is needed to address speech-related biases). Letter from David A. O’Connor, Hamilton, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, Attach. (filed April 17, 2024) (Hamilton April 17 *Ex Parte*); Letter from Zainab Alkebsi, NAD and AnnMarie Killian, TDIforAccess, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 1 (filed July 25, 2024) (NAD-TDI July 25 *Ex Parte*).

⁵⁷ See CaptionCall Reply Comments at 11-13 (discussing the role of CA-assisted IP CTS in maintaining service quality).

appears to be a substantial incentive for providers to limit the use of the CA-assisted mode, even where a consumer would prefer it.⁵⁸

22. *TRS Fund Stewardship Concerns.* The current single rate of \$1.30 per minute became effective July 1, 2021, when approximately 15% of IP CTS minutes were ASR-only.⁵⁹ As the volume of ASR-only service has increased, the average per-minute cost of IP CTS has declined, resulting in excessive compensation at the current single rate.⁶⁰ In 2023, compensation for ASR-only minutes produced an operating margin of \$0.70 per minute—116.7% above expenses.⁶¹ Moving ASR-only compensation closer to actual cost will conserve the TRS Fund and may decrease the potential incentive for a provider to engage in fraudulent practices.

23. *Need for Metrics.* Various parties argue that it would be better as a matter of policy and good governance for the Commission to establish service quality metrics before resetting IP CTS compensation rates.⁶² Progress has been made toward establishing metrics. In February 2023, the MITRE Corporation (MITRE), in its capacity as a Federally Funded Research and Development Center, formed a working group to develop a recommendation on metrics and measures for IP CTS service quality.⁶³ The working group, composed of community advocates, IP CTS providers, academia, and subject matter experts from related industries, was tasked by MITRE to: (1) identify and define measures that can be used to quantify and compare caption quality as it relates to effective communication; (2) propose methods for assessing IP CTS using these measures; and (3) identify potential criteria for establishing meaningful thresholds for acceptable caption quality.⁶⁴ The working group's report, completed June 5, 2024, includes six recommendations:⁶⁵

- Work with an American National Standards Institute (ANSI)-certified standards developer to initiate a process to formalize caption quality standards;
- Continue to refine measures and metrics as technology improves, while recognizing that no single measure reflects caption quality for all users, and that there is a distinction between what is feasible today and what is needed for full functional equivalence;
- Adopt a more transparent testing framework, as described in the report;
- Use the recommended testing framework to measure caption accuracy, caption delay, non-speech information, and punctuation and formatting;⁶⁶

⁵⁸ Once ASR-only service was introduced by most providers, it quickly became the most commonly used service mode—averaging 43.5% of compensable minutes in 2022, 74.6% in 2023, and a projected 84.5% in 2024. *Supra* Table 1; 2023 TRS Fund Report, Exh. 2. Although the percentage of ASR-only use is different for each provider, as of December 2023, average CA-assisted usage (as a percentage of total minutes) is substantially higher for providers that offer consumers a choice of service mode than for providers that unilaterally determine the service mode. *See* Updated Cost and Demand Reports (confidential).

⁵⁹ *See* Initial Cost and Demand Reports (confidential).

⁶⁰ *See* 2024 TRS Fund Report at 12.

⁶¹ *See supra* Table 1.

⁶² *See generally* Hamilton Comments at 2-4; Brattle Report at 13, para. 26; Ultratec Comments at 8-17; ClearCaptions Comments at 1; CaptionCall Comments at 7-8.

⁶³ MITRE, Telephone Caption Quality Measures and Metrics Working Group: Final Report (June 5, 2024) (Caption Quality Report); Letter from Michael Scott, CGB, to Marlene H. Dortch, FCC, CG Docket Nos. 13-24 and 03-123, Attach. (filed June 11, 2024) (filing a copy of the Caption Quality Report in the IP CTS metrics proceeding).

⁶⁴ Caption Quality Report at 1.

⁶⁵ *Id.* at 1-3. Except where indicated, there was unanimous consensus for the recommendations among working group members. *Id.*

⁶⁶ A majority of working group members supported this recommendation. *Id.* at 1, 2.

- Provide more transparency for research plans and results;⁶⁷
- Perform additional research to improve measures, identify appropriate metrics, and establish thresholds for acceptable caption quality.

24. By reaching consensus on a number of issues that had been the subject of dispute among commenters on the *Telephone Caption Metrics Notice*, the working group may have laid the foundation for ultimate adoption of caption quality metrics. However, it is unnecessary—and would not be appropriate—for us to defer the adoption of revised compensation formulas until metrics are in place. We need not resort to metrics to recognize that the current compensation rate for ASR-only service is unreasonably high. Continuing to support ASR-only IP CTS at this rate would be inconsistent with responsible stewardship of the TRS Fund.⁶⁸ In addition, as noted above, continuing to pay a single rate for IP CTS, regardless of the captioning mode, inherently encourages providers to increase or promote even more use of lower-cost ASR-only captioning, regardless of whether the quality is better or worse than higher-cost CA-assisted captioning.⁶⁹ Adopting bifurcated compensation rates will mitigate such incentives pending further information about the relative quality of the two service modes.

25. *Reliability of Cost Data.* In comments and *ex parte* submissions filed in 2023, several commenters argued that the cost and demand data then available—consisting of historical cost and demand for 2021 and 2022 and projected cost and demand for 2023 and 2024⁷⁰—were insufficiently reliable to support a revised compensation plan, and especially the application of different rates to ASR-only and CA-assisted IP CTS.⁷¹ For example, it was argued that historical cost and demand data for 2021 and 2022 were unreliable due to the impact of the COVID-19 pandemic on the demand for IP CTS and that there was insufficient experience with ASR-only service to enable the Commission to reliably estimate its cost.⁷² However, now that the record has been updated to include providers’ cost and demand

⁶⁷ Two alternative recommendations for achieving greater transparency were identified, each with some support but less than a consensus. Under one approach, all research designs directly or indirectly funded by the Commission would be made available for public comment prior to approval, and research results would be made public no later than 6 months after completion of the research. Under a second approach, for which additional details need to be worked out, TRS quality testing methodologies and results would be made available for public comment in a timely manner, and results would be made public within an appropriate timeframe after delivery to the Commission. *Id.* at 2-3.

⁶⁸ One commenter’s expert suggests that rate-setting should be delayed because “if quality metrics are defined in the near future, then the compliance cost of meeting these metrics are unknown today.” Brattle Report at 13, para. 26. The Commission’s exogenous cost recovery criteria provide a mechanism for recovery of such compliance costs in appropriate circumstances. *See infra* para. 87; *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10886, para. 39.

⁶⁹ A number of commenters stress the importance of sustaining CA-assisted service. *See, e.g.*, AARO Comments at 4; Ultratec Comments at 11, 13; Hamilton Comments at 4; Hamilton April 17 *Ex Parte*; Letter from John T. Nakahata, Counsel to CaptionCall, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 1 (filed May 23, 2024) (*CaptionCall May 23 Ex Parte*); NAD-TDI July 25 *Ex Parte*.

⁷⁰ The TRS Fund administrator’s estimates of average cost and demand for CA-assisted and ASR-only IP CTS, based on individual providers’ reports (filed in February 2023) of historical and projected cost and demand for these calendar years, were filed May 1, 2023. 2023 TRS Fund Report, Exhs. 1-3, 1-3.a, 1-3.b.

⁷¹ Hamilton Comments at 3-4; Brattle Report at 3-4, para. 7; InnoCaption Comments at 2-3; ClearCaptions Comments at 16; CaptionMate Comments at 7; CaptionCall Comments at 17; *see* Hamilton Nov. 24 *Ex Parte* at 2 (asserting that the Commission should extend current rate through June 30, 2024, to ensure the Commission has appropriate, accurate cost data that has been audited); Letter from John T. Nakahata, Counsel to CaptionCall, to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 22-408, 13-24, and 03-123, at 1-2 (filed Nov. 21, 2023) (*CaptionCall Nov. 21 Ex Parte*) (asserting that the Commission should wait to consider 2023 data to add another year’s worth of historical cost data and allow for projections based on additional 12 months of experience).

⁷² *See* Brattle Report at 5-7, paras. 8-11; ClearCaptions Comments at 12; ClearCaptions Reply Comments at 6; Letter from Karen Peltz Strauss, Consultant to Ultratec, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, 13-24, at 2 (filed Nov. 15, 2023) (*Ultratec Nov. 15 Ex Parte*); Letter from David A. O’Connor, Counsel to

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reported in February 2024, which includes historical cost and demand for 2022 and 2023 and projections for 2024 and 2025, these arguments for further delay are less applicable—as a number of commenters appear to acknowledge.⁷³

26. The current record also suggests that any pandemic-related effects on IP CTS demand and cost have almost entirely dissipated. It now appears that, by mid-2022, IP CTS demand had resumed approximately its historical trajectory.⁷⁴ As to the effects of the pandemic on labor cost,⁷⁵ in the case of IP CTS we find no persuasive evidence of any impact that would render the cost data for 2023 and 2024 unreliable. Unlike the supply of VRS CAs, which is inherently restricted due to the need for highly trained American Sign Language interpreters, the supply of CAs of the type needed by most IP CTS providers appears to be more elastic, and a lasting labor shortage less likely—especially given the shift to mostly ASR-only captioning.⁷⁶ The record—which shows that historical CA-assisted costs increased less than 3% from 2022 to 2023⁷⁷—appears to confirm that any unusual upward trend did not outlast the pandemic.

27. Regarding ASR-only IP CTS, as expected, an additional year of cost and demand data has significantly increased the confidence with which we can reasonably estimate the average per-minute cost of ASR-only service. The cost and demand data now available include at least 20 months of historical ASR-only data from every IP CTS provider offering service prior to January 2024.⁷⁸ This is substantially more than the 12 months of historical data the Commission ordinarily uses in setting rates.⁷⁹ And as noted above, delaying the establishment of a separate rate for ASR-only service will reinforce

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Hamilton, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, 13-24, at 2 (filed Nov. 7, 2023) (Hamilton Nov. 7 *Ex Parte*).

⁷³ See, e.g., Hamilton June 6 *Ex Parte* (recommending specific rates for ASR-only and CA-assisted); CaptionCall May 23 *Ex Parte* (same); ClearCaptions May 20 *Ex Parte*, Attach. at 9 (same).

⁷⁴ See 2024 TRS Fund Report, Exh. 1-3.a; cf. Brattle Report at 9, para. 18 n.33 (citing data in Rolka Loube’s May 2021 TRS Fund Report as evidence of the alleged unreliability of cost and demand data). In accordance with the Commission’s average-cost methodology, the most relevant cost data for setting IP CTS compensation are historical costs reported for calendar year 2023 and projected costs reported for calendar year 2024. See *infra* Part III.C.1.

⁷⁵ Brattle Report at 7-8, paras. 12-14; The Brattle Group, “IP CTS Costs and Reimbursement Rates: Reply Comments on FCC’s NPRM” at 6-8 (Apr. 3, 2023) (Attached to Hamilton Reply Comments) (Brattle Reply Report) (contending that the pandemic has had longer-lasting effects on labor costs—primarily CA wages).

⁷⁶ As discussed below, to address relevant inflation between 2022-23 and 2023-24, we apply an appropriate index to average cost for 2022 and 2023. For similar reasons, we find no persuasive evidence that, as the Brattle Report speculates, “an increase in the number of people working from home will result in an increase to these capital costs.” Brattle Report at 8-9, para. 15.

⁷⁷ See ASR-Only and CA-Assisted Cost and Demand Totals.

⁷⁸ See Updated Cost and Demand Reports (confidential); May 21 Cost and Demand Supplements (confidential); *supra* note 10 (identifying four new IP CTS providers conditionally certified in January 2024). As of January 2024, all five providers then offering IP CTS had been certified for at least 20 months to include ASR-only as a captioning option.

⁷⁹ See *infra* Part III.C.1. We also note that, because IP CTS compensation rates are set based on industry-wide averages, individual cost and demand variations are less important than they might have been if the Commission had found it necessary to set rates on a more individualized basis. Cf. Ultratec Nov. 15 *Ex Parte* at 1-3 (arguing that the cost data then available were skewed because different providers introduced ASR-only IP CTS at different times in 2021 and 2022, and because usage of ASR-only service continued to vary thereafter as providers and consumers experimented with the service options).

providers' incentive to decrease reliance on CAs, even where preferred by the consumer or needed for functionally equivalent service.⁸⁰

28. We acknowledge that additional experience with the ASR-only mode may further improve the Commission's ability to assess its effect on the cost of IP CTS. However, by taking account of current data, the compensation formulas herein will reflect the reasonable costs of each service mode more accurately than the current formula does. Adopting revised formulas also will substantially reduce the current waste of TRS Fund resources (as well as possible incentives for fraud and abuse) and reduce providers' incentive to inappropriately substitute ASR-only for CA-assisted service.⁸¹

2. Proposals for Additional Rate Categories

29. *Separate CA-Assisted Rate for CART-Based IP CTS.* We decline to adopt a separate CA-assisted rate for calls that are captioned using the Communications Access Realtime Translation (CART) method,⁸² as advocated by InnoCaption.⁸³ As discussed above, we find that setting separate rates for the broad categories of CA-assisted and ASR-only methods of providing IP CTS is justified by special considerations, as a limited deviation from the historical practice of applying the same compensation formula to all methods of providing a particular relay service.⁸⁴ However, except for the conditional rate supplement discussed further below,⁸⁵ we are unpersuaded that any analogous considerations warrant a *further* subdivision of the CA-assisted rate.

30. Although we recognize that the CART method may have certain benefits, the record at this time does not indicate that those benefits are so clear as to warrant giving special support for this approach over other methods of CA-assisted captioning, despite its acknowledged higher cost.⁸⁶ The evidence in the record regarding the particular advantages of the CART method is from 2020, and with recent improvements in ASR technology, providers have developed new methods of using ASR with CA-assisted captioning.⁸⁷ Thus, there are now several variants of CA-assisted captioning being used by IP CTS providers⁸⁸—as well as variations in the methods used by providers to determine which service

⁸⁰ By December 2023, ASR-only minutes increased to an average of 85% of total IP CTS minutes. *See* ASR-Only and CA-Assisted Cost and Demand Totals.

⁸¹ Hamilton's expert consultant states that setting a separate, lower rate for ASR-only service would discourage innovation in the provision of automatic forms of IP CTS. Brattle Report at 10, para. 20. However, no evidence is presented for this claim, and given the very substantial difference in reported costs for these services, a lower rate can be set for ASR-only without depriving providers of resources for innovative research and development.

⁸² We use the term *CART* in this context to refer to a captioning method whereby a professional stenographer produces captions without any assistance from ASR software. *See* InnoCaption Comments at 6.

⁸³ *See id.* at 6-10; InnoCaption June 6 *Ex Parte*; Letter from Cristina O. Duarte, InnoCaption, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 1 (filed Nov. 17, 2023) (InnoCaption Nov. 17 *Ex Parte*).

⁸⁴ *Supra* paras. 19-28.

⁸⁵ The conditional rate supplement we adopt for CA-assisted service is applicable to any qualifying provider of CA-assisted service, including providers using the CART method. *See infra* Part III.D.4.

⁸⁶ *See* InnoCaption Comments at 9; *InnoCaption Conditional Certification*, 29 FCC Rcd at 5107-08 (discussing higher cost of this method).

⁸⁷ *See, e.g.*, Hamilton Apr. 9, 2021 *Ex Parte* at 1 & Attach. (filed Apr. 9, 2021) (summarizing "important new research into the use of [ASR] in combination with [CAs] to significantly improve accuracy and minimize delay using [IP CTS]").

⁸⁸ In addition to the CART method and the revoicing method (in which a CA repeats the caller's speech into a microphone attached to an ASR program), there is a third variant of CA-assisted IP CTS, in which the initial caption is produced by applying ASR directly to the caller's speech (as in ASR-only IP CTS), and the resulting caption is then edited by a CA to correct any mistakes. *See supra* para. 9 & note 8.

mode should be applied to a call.⁸⁹ The current record does not provide definitive evidence as to whether testing of the methods in use today, using improved measurements,⁹⁰ would indicate a material, qualitative difference between InnoCaption’s performance using the CART method and the performance of IP CTS providers using other methods of producing CA-assisted captions. Further, the efficacy of any particular captioning method is not determined solely by the technology used, but also by the resources and skill with which that technology may be implemented by a particular service provider. Given the statutory mandates for efficiency and technological neutrality,⁹¹ as well as the absence of definitive measurements of service quality, we find insufficient basis at this time for setting different compensation rates based on the specifics of each CA-assisted captioning method.

31. *Separate ASR-only Rates for Fully Automated and “Hybrid” Providers.* We also decline to adopt Brattle Group’s recommendation that two different compensation rates be set for ASR-only minutes, based on whether the service provider (i) is fully automated, i.e., does not employ CAs for captioning *any* calls; or (ii) is a “hybrid” provider that uses CA-assisted methods for some calls and ASR-only for others.⁹² The concerns noted above regarding deviations from the Commission’s historical practice are also applicable here. In addition, we note that, if we adopted Brattle Group’s suggestion, the vast majority of ASR-only minutes would be compensated under the rate established for “hybrid” providers, which currently account for {[]} of projected ASR-only minutes.⁹³ For the same reason, an ASR-only rate based on the average ASR-only cost of the four “hybrid” providers would be similar to a cost-based ASR-only rate based on the ASR-only costs of all reporting providers.⁹⁴ While fully automatic providers would receive a much higher compensation rate for their ASR-only minutes, their higher per-minute costs are likely attributable primarily to the very low volume of minutes projected by fully automatic providers, given the economies of scale that appear to be involved in ASR-only captioning. Therefore, it is unlikely that differentiating ASR-only rates in this manner would succeed in accounting for any cost differential that may be inherent in a provider’s choice of whether to use multiple captioning methods.⁹⁵

3. Classification of Calls

32. As proposed, the CA-assisted compensation formula shall apply to any call (or any call minutes, if a CA is not present for the entire call) to which a CA is dedicated, provided that the CA is actively engaged in the captioning process.⁹⁶ The applicability of the CA-assisted rate will not be affected by the specific nature of the active task(s) performed by the CA during such assignment (i.e., revoicing, typing the captions, or monitoring and correcting the output of an automatic speech recognition program). Commenters generally support this proposal.⁹⁷ We conclude that assigning a CA to monitor and correct

⁸⁹ See *supra* para. 9.

⁹⁰ As noted above, the process of developing metrics and measures for IP CTS service quality is not yet complete. See *supra* para. 23-24.

⁹¹ See 47 U.S.C. § 225(b)(1), (d)(2).

⁹² See Brattle Report at 14, paras. 28-29. Brattle also seems to suggest that a provider that uses CAs for every call should be subject to a different CA-assisted rate than the CA-assisted rate applicable to providers that do *not* provide CA assistance for every call. Brattle Report at 14, paras. 28, 29. Currently, no provider uses CAs for every call; therefore, it is not necessary to address this theoretical concern on the current record.

⁹³ Updated Cost and Demand Reports (confidential); May 21 Cost and Demand Supplements (confidential).

⁹⁴ See *infra* Table 2.

⁹⁵ See Brattle Report at 14, paras. 28-29.

⁹⁶ Notice, 37 FCC Rcd at 15246, paras. 21-23.

⁹⁷ See CaptionCall Comments at 29 (“[M]ethods of captioning that involve the full attention of a human CA incur the same labor costs as CA-based captioning” and should be reimbursed as such “even if ASR applied to the native audio is also used as part of the process of creating captions”); ClearCaptions Comments at 27 (“If a human CA is

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any errors in ASR-generated captions justifies compensation at the CA-assisted rate, provided that the CA is dedicated to these tasks from the beginning to the end of the call (or for the entire portion of the call that the provider designates as CA-assisted). However, the CA-assisted rate shall not apply if the CA is monitoring more than one call, or is splitting time between monitoring a call and attending to other tasks, or is only monitoring the captions, e.g., for research purposes, without actually correcting or supplementing the ASR-generated captions when necessary. In such a case, the employee's involvement is more in the nature of general supervision of ASR-only operations.

33. We are also sensitive to the potential risk that, given the substantial differential between the ASR-only and CA-assisted compensation rates adopted herein, an IP CTS provider might have an incentive to hire additional CAs or steer consumers to CA-assisted calls even if consumers would not benefit from such a mode of IP CTS.⁹⁸ For example, if such CAs work at home while receiving minimal training and supervision, the incremental per-minute cost (for a low-cost provider) of additional CA-assisted minutes might be less than the rate differential under our bifurcated compensation plan. Therefore, we delegate authority to the Consumer and Governmental Affairs Bureau, in coordination with the Office of the Managing Director, to work with the TRS Fund administrator to ensure that annual cost reports include information that will enable the Commission to determine the reasonableness of IP CTS providers' practices related to hiring, training, and supervising CAs and to prevent waste of TRS Fund resources.

34. In addition, the Commission reserves the right to revisit and revise the compensation formulas for CA-assisted and ASR-only IP CTS prior to the end of the compensation period, if it concludes that such intervention is called for to achieve statutory objectives. For example, if evidence suggests that CAs are being added to calls primarily to gain the higher compensation rate, without significantly increasing the accuracy of the captions, then—in addition to taking other appropriate measures—the Commission may revise the compensation formulas to correct providers' incentives and mitigate the risk of waste, fraud, and abuse.

B. Allowable Costs

35. As proposed in the *Notice*,⁹⁹ we expand the criteria for IP CTS cost recovery for research and development (R&D), numbering, and user access software, harmonizing them with the VRS cost criteria adopted in the *2023 VRS Compensation Order*.¹⁰⁰ We decline to revisit the longstanding Commission policy that the TRS Fund does not support the cost of providing, installing, or maintaining customer premises equipment.¹⁰¹

1. Research and Development

36. We revise our allowable cost criteria to allow TRS Fund support for the reasonable cost of research and development to enhance the functional equivalence of IP CTS, including improvements in service quality that may exceed the Commission's mandatory minimum TRS standards. Numerous

(Continued from previous page) _____
monitoring a call, there is labor involved, which is equivalent to a CA providing captions and the call should be compensated under the CA-assisted rate").

⁹⁸ See Letter from Scott D. Delacourt, Counsel to CaptionMate, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 5 (filed Nov. 30, 2023) (CaptionMate Nov. 30 *Ex Parte*) (asserting that "if rates are bifurcated, the incentives change so that an operator of both CA service and ASR service may assign calls to maximize their revenues (for example, by assigning as many calls as possible to CAs) or their profits (for example, by assigning calls to CAs whenever there is spare capacity regardless of need)").

⁹⁹ *Notice*, 37 FCC Rcd at 15252-56, paras. 27-35.

¹⁰⁰ See *2023 VRS Compensation Order*, paras. 30-38, 44-47.

¹⁰¹ *Notice*, 37 FCC Rcd at 15255, para. 33.

commenters support and no commenter opposes this change.¹⁰² As in the case of VRS, and for similar reasons, we find that the current criterion—allowing cost recovery only for R&D conducted to ensure that a provider’s service meets the minimum TRS standards—is unnecessarily restrictive.¹⁰³ Authorizing providers (as well as Commission-directed entities) to conduct additional research is consistent with the statutory mandate to encourage the use of improved technology for TRS¹⁰⁴ and with the Commission’s policy of authorizing multiple IP CTS providers to compete with one another based on service quality.¹⁰⁵ Such competition logically may lead IP CTS providers to conduct research and development on innovative methods of producing and delivering captions, resulting in improved service quality that may exceed the level required by our minimum standards.¹⁰⁶ We also find support for this change in commenters’ recent submissions emphasizing the need to ensure that the compensation plan supports research and development to improve IP CTS.¹⁰⁷ To establish consistent allowable-cost criteria for all three forms of IP-based TRS, we conclude that the expanded allowability of reasonable research and development costs shall also apply to IP Relay.¹⁰⁸

37. In the *Notice*, we also sought comment on whether to adopt measures to prevent waste and ensure that the benefit of the conducted research and development actually enhances functional equivalence.¹⁰⁹ However, we also noted that by using an average cost methodology and setting compensation formulas for multi-year periods, the Commission can provide substantial incentives for providers to use research and development funds wisely and avoid incurring unnecessary costs.¹¹⁰ We continue to believe that the above incentive structure is a robust safeguard against waste, and we agree with commenters that additional safeguards, such as the additional reporting required in the *2023 VRS Compensation Order*,¹¹¹ are not necessary at this time.¹¹² We stress that, as with all provider-reported expenses, expenses for research and development to improve IP CTS are allowable only if “reasonable.” In addition, expenses incurred to develop proprietary user devices and software (or any non-TRS product or service) are not recoverable from the TRS Fund.¹¹³

¹⁰² See, e.g., Hamilton Comments at 16; CaptionMate Comments at 3; Ultratec Comments at 20.

¹⁰³ *2023 VRS Compensation Order*, para. 32.

¹⁰⁴ See 47 U.S.C. § 225(d)(2).

¹⁰⁵ *Notice*, 37 FCC Rcd at 15252, para. 28 (citing *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10884-85, para. 35).

¹⁰⁶ Cf. *2023 VRS Compensation Order*, para. 32.

¹⁰⁷ See CaptionCall July 1 *Ex Parte* at 5; ClearCaptions July 18 *Ex Parte*, Attach. A at 7; NAD-TDI July 25 *Ex Parte* at 2.

¹⁰⁸ See *2022 IP Relay Compensation Order*, 37 FCC Rcd at 8019, para. 26 (deferring resolution of this issue with respect to IP Relay).

¹⁰⁹ *Notice*, 37 FCC Rcd 15253, para. 30.

¹¹⁰ *Id.*

¹¹¹ *2023 VRS Compensation Order*, paras. 124-26.

¹¹² See Hamilton Comments at 16 (noting that “there are sufficiently robust enforcement measures in place currently, including the Commission’s authority to audit providers’ costs”); ClearCaptions Comments at 28 (explaining that “IP CTS Providers are already required to report research and development in their annual Relay Services Data Request (“RSDR”) cost filing.”); cf. *2023 VRS Compensation Order*, para. 124 (noting that estimated VRS costs exceed historical levels by 27% and directing, *inter alia*, that specific information be collected on VRS providers’ R&D spending to “enable the Commission to review whether the increased compensation authorized herein is having the intended results of enabling service improvements that enhance functional equivalence”).

¹¹³ See *2023 VRS Compensation Order*, para. 34; *infra* para. 46.

2. Numbering

38. As also proposed in the *Notice*, we treat as allowable the reasonable costs of acquiring North American Numbering Plan (NANP) telephone numbers for IP CTS users, in those circumstances where assignment of a telephone number is necessary to provide the service.¹¹⁴ In a 2008 ruling, the Commission determined that such costs would not be supported by the TRS Fund,¹¹⁵ reasoning that they are not attributable to the use of relay service and that analogous costs incurred by voice service providers are typically passed through to their customers.¹¹⁶ Recently, however, the Commission revisited this issue with respect to IP Relay and VRS, concluding that the reasonable cost of assigning and porting NANP numbers for those services should be supported by the TRS Fund. Recognizing that our rules require the assignment of NANP numbers to IP Relay and VRS users and that, based on the current record, numbering costs are unlikely to be recoverable from users as a practical matter, the Commission concluded that such costs are now appropriately attributed to the use of relay to facilitate a call.¹¹⁷

39. While the most common IP CTS configuration allows consumers to use existing telephone numbers to place and receive calls over a landline voice service,¹¹⁸ assignment of a new number may be necessary as a practical matter for some configurations of IP CTS—for example, where an over-the-top application enables captioning of calls placed and received on smartphones and other devices.¹¹⁹ In such cases, as is true for VRS and IP Relay, the IP CTS provider typically does not have a billing relationship with the consumer, and there seems to be little point in creating such a relationship for the sole purpose of passing through what likely would be a *de minimis* monthly charge for any particular IP CTS user.¹²⁰

40. Therefore, we revise our allowable-cost criteria for IP CTS to allow TRS Fund support of an IP CTS provider's reasonable costs of acquiring NANP telephone numbers when necessary to provide the service.¹²¹ We stress that the cost of number assignment is allowable only where such number assignment is necessary for the provision of IP CTS in a particular configuration. As noted above, most

¹¹⁴ *Notice*, 37 FCC Rcd at 15253-54, para. 31. Several commenters support this change (*see* CaptionCall Comments at 36; CaptionMate Comments at 1), and no party opposes it.

¹¹⁵ *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; E911 Requirements for IP-Enabled Service Providers*, CG Docket No. 03-123, CC Docket No. 98-67, WC Docket No. 05-196, Second Report and Order and Order on Reconsideration, 24 FCC Rcd 791, 812-16, paras. 46-54 (2008).

¹¹⁶ *Id.*

¹¹⁷ *See 2022 IP Relay Compensation Order*, 37 FCC Rcd at 8019, para. 25; *2023 VRS Compensation Order*, paras. 36-38.

¹¹⁸ *See, e.g.*, CaptionCall Comments at 34-36, 38-41; ClearCaptions Comments at 9-11, 19-24. IP CTS is typically provided as an adjunct to a subscriber's existing telephone service. That is, the user obtains a device with a screen display and connects it to the existing telephone service and number. *See Notice*, 37 FCC Rcd at 15253-54, para. 31 & n.70.

¹¹⁹ In such instances, the provider may assign a new NANP number to the user, which is different from the user's landline or mobile number. The new number may be used, for example, to enable incoming calls (including 911 callbacks) to be received via the captioning app on a smartphone, rather than the phone's native telephony application. *See Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 13-24 and 03-123, Report and Order, Further Notice of Proposed Rulemaking, and Order, 34 FCC Rcd 691, 711-12, 714, paras. 44, 49 (2019) (*2019 IP CTS 911 Waiver Order*) (waiving certain IP CTS call handling rules where IP CTS providers assign users NANP telephone numbers that can be used to deliver a callback number to a PSAP).

¹²⁰ *See 2022 IP Relay Compensation Order*, 37 FCC Rcd at 8019, para. 25.

¹²¹ As noted in the text, not every IP CTS subscriber will require assignment of a NANP number from the IP CTS provider.

IP CTS users receive captioning on a landline phone, in a configuration that does not require the assignment of a new telephone number. As with other reported costs, if audits or other review reveals that numbering costs are being reported in excess of reasonable amounts, the excess will be disallowed.

41. As in the *2023 VRS Compensation Order*, we also clarify that, to the extent IP CTS providers are responsible for delivery of a user’s 911 call to the nearest Public Safety Answering Point (PSAP), the TRS Fund supports reasonable expenses to connect the 911 call quickly and to automatically provide location data to the PSAP.¹²²

3. Customer Premises Equipment

42. Our rules do not prohibit IP CTS providers or their partners from distributing customer premises equipment (CPE) to IP CTS users. However, the TRS Fund does not support the provision of CPE to TRS users,¹²³ except where Congress has specifically authorized such support.¹²⁴ The *Notice* did not re-open or seek comment on this issue.¹²⁵ Nonetheless, a number of commenters urge the Commission to revisit whether the TRS Fund should support the provision of CPE to IP CTS users.¹²⁶ Because this question does not fall within the scope of the *Notice*, it is not necessary for the Commission to address those comments in this *Report and Order*.

¹²² See *2023 VRS Compensation Order*, para. 38.

¹²³ *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10873, para. 18 (adhering, for purposes of IP CTS compensation, to “well-settled rulings on the allowability of specific categories of TRS costs, including, e.g., disallowance of costs attributable to . . . the provision and maintenance of end-user devices”); *2018 IP CTS Compensation Order*, 33 FCC Rcd at 5820, para. 34 (rejecting argument that the TRS Fund should support costs incurred to provide equipment to IP CTS users); *2017 VRS Compensation Order*, 32 FCC Rcd at 5897-901, paras. 12-19 (rejecting various arguments for permitting TRS Fund support for the provision of CPE to VRS users); *Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 10-51 and 03-123, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd 8618, 8696-97, paras. 193-94 (2013) (*2013 VRS Reform Order*) (declining to revisit, in the VRS context, the prohibition of TRS support for CPE); *2007 TRS Rate Methodology Order*, 22 FCC Rcd at 20171, para. 82 (reaffirming that “costs attributable to relay hardware and software used by the consumer, including installation, maintenance costs, and testing are not compensable from the Fund”); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Memorandum Opinion and Order, 21 FCC Rcd 8063, 8071, para. 17 (2006) (ruling that, because “compensable expenses must be the providers’ expenses in making the service available and not the customer’s costs of receiving the service,” they do not include expenses for CPE). Such exclusions have been upheld repeatedly on judicial review. See *Sorenson Communications v. FCC*, 659 F.3d 1035, 1046-47 (10th Cir. 2011) (*Sorenson 2011*); *Sorenson Communications v. FCC*, 765 F.3d 37, 44-45 (D.C. Cir. 2014) (*Sorenson 2014*).

¹²⁴ See 47 U.S.C. § 620 (specifically authorizing TRS Fund support for the provision of CPE for people who are deafblind, subject to an annual \$10 million limit).

¹²⁵ In the *Notice*, the Commission noted that “[p]ursuant to longstanding Commission rulings, twice upheld by the D.C. Circuit, the TRS Fund does not support the provision of the equipment used by a consumer to access TRS,” *Notice*, 37 FCC Rcd at 15254-55, para. 32, and expressly stated that it was “not proposing to include the costs of providing any devices to users, just the costs of developing and providing software that is necessary to provide IP CTS on off-the-shelf devices.” *Id.* at 15255, para. 33.

¹²⁶ See ClearCaptions Comments at 9-11, 19-22 (arguing that “purpose-built” CPE is needed by most IP CTS users, due to their age and inability to use smartphone applications, and is not commercially available); Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 1-6 (filed July 17, 2023) (ClearCaptions July 17 *Ex Parte*); see also CaptionCall Comments at 13-15, 34-36; Letter from John T. Nakahata, Counsel to CaptionCall, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 3 (filed Oct. 19, 2023) (CaptionCall Oct. 19 *Ex Parte*) (asserting that “the current IP CTS population is highly likely to need caption-capable telephones in order to use the service”); Letter from David A. O’Connor, Counsel to Hamilton, to Marlene H. Dortch, FCC, at 3 (filed Oct. 25, 2023) (Hamilton Oct. 25 *Ex Parte*).

43. Further, even if those comments could be construed as within the scope of the *Notice*, for the reasons articulated in our prior orders,¹²⁷ commenters provide no persuasive reason to revisit the issue on its merits. The Commission long ago decided that costs attributable to equipment that a TRS provider distributes to a consumer, including installation, maintenance, and testing, are not compensable from the TRS Fund.¹²⁸ The well-established distinction in our rules between relay services, which are supported by the TRS Fund, and end user devices, which are not, is grounded in the text of the governing statutory provision. As the Commission has explained, “Section 225 focuses on the provision of relay service,” requiring common carriers to provide relay *services* either directly or indirectly (e.g., through a TRS Fund-supported provider), and “this is apparent from the plain language of Section 225, which is directed at ‘services’ that carriers must offer in their service areas that enable communication between persons who use a TTY or other non-voice terminal device and an individual who does not use such device.”¹²⁹ The Commission has further held that “[c]osts associated with CPE are not part of a provider’s expenses in making relay *services* available; rather they must be incurred by consumers to receive these services,” just as people who do not use relay services must purchase their phones.¹³⁰ The Commission’s determinations disallowing CPE costs have been upheld by federal courts of appeals.¹³¹

44. We also note that, contrary to ClearCaptions’ argument,¹³² a mere analogy between section 225 and certain provisions in section 254 of the Act carries no legal weight. TRS support is governed by section 225, not section 254, and we reject the suggestion that somehow our authority under the former provision can be expanded based on a purported analogy to how the Commission has exercised its authority under the latter provision.

45. In addition, even if the Commission had statutory authority to do so, we are unconvinced that TRS Fund support for provider distribution of user devices—in particular, purpose-built, proprietary equipment¹³³—would be necessary or appropriate to ensure the availability of functionally equivalent relay service. Authorizing TRS Fund support for the kinds of user devices currently offered by providers—i.e., relatively expensive, proprietary equipment that can only be used with one provider’s

¹²⁷ See *supra* note 123.

¹²⁸ *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Declaratory Ruling and Further Notice of Proposed Rulemaking, 21 FCC Rcd 5442, 5457-58, para. 38 (2006) (*2006 Declaratory Ruling*).

¹²⁹ See *id.* at 5457-58, para. 38 & n.129 (citing 47 U.S.C. § 225(c) (“Each common carrier providing telephone voice transmission services shall . . . provide . . . telecommunications relay *services*, individually, through designees, through a competitively selected vendor, or in concert with other carriers.”) (emphasis added). By contrast, a separate provision of the Act *permits, but does not require* carriers to provide specialized CPE for people with disabilities. See 47 U.S.C. § 610(g) (“Any common carrier or connecting carrier *may* provide specialized terminal equipment needed by persons whose hearing, speech, vision, or mobility is impaired. The State commission may allow the carrier to recover in its tariffs for regulated service reasonable and prudent costs not charged directly to users of such equipment.”) (emphasis added); *cf.* ClearCaptions July 17 *Ex Parte* at 6-7 (quoting the legislative history of this provision and contending that “[s]ection 225 embodies this obligation”).

¹³⁰ *2017 VRS Compensation Order*, 32 FCC Rcd at 5897, para. 12.

¹³¹ *Sorenson 2011*, 659 F.3d at 1044-45 (statute does not require that “VRS users receive free equipment and training,” only that they “pay no higher rates for calls than others pay for traditional phone services,” and exclusion of CPE costs does not undermine section 225 goal of not discouraging or impairing development of improved technology); *Sorenson 2014*, 765 F.3d at 44.

¹³² See ClearCaptions July 17 *Ex Parte* at 9-11 (citing 47 U.S.C. § 254(h)).

¹³³ See ClearCaptions Comments at 9-11, 19-22.

service and that has an unusually short useful life¹³⁴—appears inconsistent with the Commission’s mandate to make TRS available in the most efficient manner.¹³⁵

46. The record is clear that IP CTS can be accessed without proprietary equipment, by downloading providers’ software applications to smartphones, tablets, and laptops.¹³⁶ Although ClearCaptions argues that such applications are generally impractical for seniors (who comprise the bulk of IP CTS users),¹³⁷ a survey cited by ClearCaptions indicates that smartphone ownership is growing faster among seniors than other age groups, and that as of 2021, 61% of seniors owned smartphones—a percentage that presumably will continue to increase.¹³⁸ In addition, as discussed in Parts III.C.4 and 5 below, reasonable expenses incurred in helping seniors download and use a provider’s smartphone application are allowable costs supported by the TRS Fund. Finally, even for those consumers who are unable to use smartphone or other software applications to access IP CTS, it appears that—despite ClearCaptions’ claim¹³⁹—screen-equipped wireline telephones, usable for captioned phone calls (or screens that can be connected to a wireline telephone) are commercially available for home use.¹⁴⁰

4. User Access Software

47. We adopt our proposal to allow TRS Fund support for the reasonable cost of developing, maintaining, and providing software and web-based applications that enable users to access IP CTS from off-the-shelf user devices, such as mobile phones, desktop computers, and laptops running on widely available operating systems.¹⁴¹ Several commenters support—and none opposes—this change, which

¹³⁴ See Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, Attach. at 5 (filed Sept. 21, 2023) (ClearCaptions Sept. 21 *Ex Parte*) (noting churn rate among customers due to age).

¹³⁵ In the VRS context, the Commission has adopted policies to encourage the use of non-proprietary, off-the-shelf, screen-equipped devices, such as smartphones, laptops, and personal computers, to access VRS. See *2023 VRS Compensation Order*, para. 46. In general, the use of non-proprietary devices for TRS (e.g., by downloading software applications developed by providers) has several advantages. First, it is less costly, as most people in the United States already own such devices and use them for a wide variety of purposes other than TRS. Second, the use of non-proprietary devices avoids “locking in” users to the service of a single TRS provider, which limits consumer choice and which also can encourage the offering of free devices as an inducement to use a particular provider’s relay service. Third, the use of non-proprietary devices avoids “siloeing” TRS users in ways that can hinder access to communication technologies available to mainstream users. See, e.g., *Notice*, 37 FCC Rcd at 15255, para. 33; *2017 VRS Improvements Order*, 32 FCC Rcd at 5900-01, para. 18.

¹³⁶ For example, CaptionCall, CaptionMate, Hamilton Relay, and InnoCaption all make their applications available on Google Play and the Apple App Store, while ClearCaptions’ application is currently available on the Apple App Store and is scheduled to be available on Android devices. See, e.g., https://play.google.com/store/search?q=caption%20calls&c=apps&hl=en_US (last visited July 30, 2024); <https://www.apple.com/us/search/caption-calls?src=globalnav> (last visited July 30, 2024); <https://clearcaptions.com/how-it-works/mobile-app/> (last visited July 30, 2024). Applications from recently certified IP CTS providers are also available for both operating systems.

¹³⁷ ClearCaptions July 17 *Ex Parte* at 3-4 (explaining that smartphone ownership is lower for seniors than for other age groups and that software applications “are confusing and difficult to use for the average senior”); see also CaptionCall May 23 *Ex Parte* at 5.

¹³⁸ Michelle Faverio, “Share of those over 65 and older who are tech users has grown in the past decade,” Pew Research Center (Jan. 13, 2022), <https://www.pewresearch.org/short-reads/2022/01/13/share-of-those-65-and-older-who-are-tech-users-has-grown-in-the-past-decade/>.

¹³⁹ ClearCaptions July 17 *Ex Parte* at 5.

¹⁴⁰ See, e.g., Teltex, <https://teltex.com/teltex-glt-w-v2t-10/> (last visited July 30, 2024) (offering the Teltex GLT Captioning Tablet “for your corded home or business phones,” using Google’s Live Transcribe service); <https://teltex.com/clarity-xlc8-glt-vco/> (last visited July 30, 2024) (offering a cordless amplified phone with the Teltex GLT Captioning Tablet).

¹⁴¹ *Notice*, 37 FCC Rcd at 15255, paras. 33-34.

harmonizes the cost criteria for IP CTS with those adopted for VRS.¹⁴² As with VRS, such costs must be incurred by an IP CTS provider to enable users to connect to its service platform; therefore, they are attributable to the provision of IP CTS. Further, recovery of such costs is consistent with our efficiency mandate, as it supports the use of off-the-shelf IP-enabled user devices to access TRS and decreases consumers' dependence on TRS equipment specifically designed for connection to a particular TRS provider.¹⁴³

48. Consistent with our compensation ruling for VRS and Part III.B.3 above, we decline some commenters' requests to allow TRS Fund support for the cost of user access software needed for proprietary user equipment supplied by the provider or a third party.¹⁴⁴ As we explain above and in the *2023 VRS Compensation Order*, while TRS users need a software interface to access TRS, they do not "need" proprietary devices that can be connected to and used with only one provider's service, nor do they need software designed for such devices. Although we do not prohibit providers from distributing such devices and software to consumers requesting them, it is not necessary to support proprietary devices and software with TRS Fund resources. Further, allowing recovery of such software costs would not advance the Commission's policy to enable users to access TRS from off-the-shelf IP-enabled devices and to avoid dependence on TRS equipment specifically designed for a particular provider's network.¹⁴⁵ If an IP CTS provider supplies user access software for both off-the-shelf and proprietary devices, and the development costs for each type of software cannot be directly assigned, a provider may adopt a reasonable allocation method to separate such costs, to ensure that it does not seek recovery for costs associated with proprietary devices. The provider shall specify the method used in its cost reports, so that it can be evaluated by the TRS Fund administrator and the Commission.¹⁴⁶

5. Field Staff Visits

49. While the *Notice* did not seek comment on the issue of whether providers should be able to recover the costs associated with deploying their field staff, the issue was raised by commenters.¹⁴⁷ We find that the Commission's ruling in the *2023 VRS Compensation Order* sufficiently addresses the issues raised in the comments regarding the treatment of costs incurred by IP CTS providers' field staff. In the *2023 VRS Compensation Order*, responding to Sorenson's petition, the Commission reaffirmed that, because the costs of installing, maintaining, and training customers to use provider-distributed devices (or software for proprietary provider-distributed devices) are not recoverable through TRS Fund compensation, expenses for field staff visits for such purposes are not allowable expenses for VRS or IP CTS.¹⁴⁸ In addition, the Commission clarified that the reasonable cost of *service*-related work performed by field staff during a visit to a new or current user (e.g., to assist customers with registration, use of the service on a non-proprietary device, or completing a port) is an allowable cost of providing VRS or IP CTS.¹⁴⁹

¹⁴² *2023 VRS Compensation Order*, para. 45; see CaptionCall Comments at 29-34 (supporting proposal and seeking to extend to proprietary devices); ClearCaptions Comments at 25-26 (same); Hamilton Comments at 16-17 (same).

¹⁴³ Cf. *2023 VRS Compensation Order*, para. 45.

¹⁴⁴ See ClearCaptions Comments at 26; CaptionCall Comments at 34; *2023 VRS Compensation Order*, para. 46.

¹⁴⁵ *2023 VRS Compensation Order*, para. 46.

¹⁴⁶ See *id.*, para. 47.

¹⁴⁷ See, e.g., CaptionCall Comments at 35-36; ClearCaptions Comments at 25; Hamilton Reply Comments at 9-10.

¹⁴⁸ *2023 VRS Compensation Order*, paras. 49-50.

¹⁴⁹ *Id.*, para. 49.

C. Determination of Cost-Based Rates

1. Cost Averaging

50. The Commission has broad discretion in choosing compensation methodologies and setting compensation rates within the parameters established by section 225 of the Act.¹⁵⁰ To set cost-based benchmarks for IP CTS compensation rates, we continue to rely on the methodology used in the *2020 IP CTS Compensation Order*, in which rates were set based on the weighted average of each provider’s projected and historical costs for the current and immediately preceding calendar years (now 2023 and 2024).¹⁵¹ We maintain this approach for essentially the same reasons cited in the *2020 IP CTS Compensation Order*. *First*, this methodology has produced consistent and reliable results without imposing undue administrative burdens on either IP CTS providers or the Commission. *Second*, average-cost-based compensation, especially when applied for more than one year, provides substantial incentives and opportunities for individual TRS providers to increase their efficiency and capture the resulting profits. *Third*, maintaining a consistent compensation methodology provides a measure of transitional stability at a time of technological change.¹⁵²

51. Some commenters object to setting rates based on an average of provider costs. According to Hamilton’s expert, the Brattle Group, averaging is inappropriate for IP CTS because “IP CTS costs do not appear to follow a normal distribution, which typically would mean a few providers with very high costs, a few providers with low costs, and a majority of providers with costs somewhere in the middle of a bell curve.”¹⁵³ However, the Brattle Group cites no authority for the claim that cost-averaging is only appropriate when provider costs are in a bell-curve shaped distribution—which is unlikely to occur where, as here, the sample size is limited to nine providers, five of which are very small or start-ups. We are also unpersuaded that there is justification for replacing our average-cost approach with a “mean plus one standard deviation” approach, as advocated by Hamilton.¹⁵⁴ Setting a CA-assisted rate based on this approach would overcompensate providers with average costs and substantially dilute the incentive for higher-cost providers to become more efficient.

52. *Tiered or Small-Provider Rates.* CaptionMate urges the Commission to adopt a tiered rate structure for IP CTS, or alternatively a separate rate for small providers, contending that supporting smaller providers with relatively high per-minute costs would offer consumers more choice and promote

¹⁵⁰ See *2019 IP CTS Contributions Order*, 34 FCC Rcd at 11270, para. 13 (detailing the Commission’s broad authority under section 225 to establish regulations, including cost recovery); see also *Sorenson Communications v. FCC*, 897 F.3d 214, 223 (D.C. Cir. 2018) (*Sorenson 2018*) (courts are particularly deferential in reviewing ratemaking orders because agency ratemaking is far from an exact science and involves policy determinations in which the agency is acknowledged to have expertise); *id.* at 227-28 (in carrying out section 225, Congress instructed the FCC to balance several different factors without instructing the FCC how to prioritize the various factors).

¹⁵¹ Under this weighted-average method, the allowable expenses reported by all CA-based and ASR-based IP CTS providers respectively for calendar years 2023 (historical expense) and 2024 (projected expenses) are totaled and the allowed operating margin (determined as a percentage of expenses) is added to total allowable expenses. The resulting total is divided by total historical (for 2023) and projected (2024) compensable minutes of demand for CA-based and ASR-based IP CTS respectively for those two calendar years, to yield an average cost per minute (including operating margin). This average cost per minute is called a “weighted” average because it gives more weight to the per-minute cost incurred by providers with relatively high demand and less weight to the per-minute cost incurred by providers with relatively low demand.

¹⁵² *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10872, paras. 14-16; see also *2018 IP CTS Compensation Order*, 33 FCC Rcd at 5813-14, para. 23.

¹⁵³ Brattle Report at 18-19, para. 38. Brattle Group also asserts that averaging is only appropriate if all relevant costs have been accounted for. *Id.* The question of which costs are relevant or allowable is addressed above. See *supra* Part III.B.

¹⁵⁴ Hamilton June 6 *Ex Parte* at 2.

innovation.¹⁵⁵ As the Commission explained in the *2020 IP CTS Compensation Order*, it adopted tiered rates for VRS due to a combination of specific circumstances that were threatening the viability of competition among VRS providers.¹⁵⁶ The Commission declined to adopt tiered rates for IP CTS because it was “not persuaded that similar or equally compelling factors are present in the IP CTS market to an extent that would justify introducing the complexities and potential inefficiencies of a tiered rate structure or an emergent provider rate.”¹⁵⁷ This remains the case today. *First*, unlike in VRS, the IP CTS market has not been dominated for a long period by a single provider. The market share of the largest IP CTS provider is not comparable to that of the largest provider in the VRS market.¹⁵⁸ *Second*, while there are economies of scale in IP CTS, there is little evidence that such economies of scale are preventing the emergence of efficient competitors.¹⁵⁹ IP CTS’s record of growth suggests that there are substantially greater opportunities than in the VRS context for a provider to reach efficient scale within a relatively short period of time. *Third*, unlike VRS, IP CTS is not dependent on interoperability and does not have other network effects that make it difficult for new entities to enter the market or obtain eligible IP CTS users as customers. *Fourth*, the relatively recent introduction of ASR-only IP CTS, as well as new methods of providing CA-assisted IP CTS,¹⁶⁰ provide additional evidence that Commission policies are not deterring innovation in this arena. *Fifth*, the four recently granted applications for IP CTS certification indicate that new entrants believe that additional competitors can succeed and innovate in the provision of IP CTS.¹⁶¹ In summary, given the relative ease of new entry and the presence of vigorous competition based on service quality, we conclude that the goals of offering consumer choice and

¹⁵⁵ CaptionMate Comments at 8; Letter from Scott D. Delacourt, Counsel to CaptionMate, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed May 14, 2024) (CaptionMate May 14 *Ex Parte*) (contending that the FCC should set a small-provider rate for IP CTS); CaptionMate Nov. 30 *Ex Parte* at 4 (asking the Commission to further develop the record on an emergent-provider rate for small IP CTS providers); *see also* Letter from CaptionMate, Global Caption, Nagish, NexTalk, and Rogervoice, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed May 31, 2024) (Small Providers May 31 Joint *Ex Parte*) (urging the Commission to adopt an Emergent Rate); *but see* CaptionCall Reply at 27-29 (opposing tiered rates because there is a competitive market, and tiered rates discourage efficiency, while creating a perverse incentive to maintain a low volume of minutes).

¹⁵⁶ *See 2020 IP CTS Compensation Order*, 35 FCC Rcd at 10888-89, para. 43.

¹⁵⁷ *See id.*; *see also* CaptionCall June 3 *Ex Parte* at 3 (except for VRS, “in no other setting would it be contemplated that an entrant could obtain a uniquely high price based solely on small market share”).

¹⁵⁸ In IP CTS, in 2023, the largest provider served {{ }} of the total minutes and there were {{ }} providers with at least a {{ }} share. *See* Updated Cost and Demand Reports (confidential); May 21 Cost and Demand Supplements (confidential). By contrast, the Commission found tiering was justified for VRS when, among other things, the largest provider served about {{ }} of the minutes and its two principal competitors served only {{ }} each. *See 2017 VRS Compensation Order*, 32 FCC Rcd at 5906, para. 29; Hamilton June 6 *Ex Parte*, Attach. at 2 (emergent rate unnecessary because there is no dominant IP CTS provider as there is for VRS). More recently, after the completed merger of the second and third largest VRS competitors and major improvements in that competitor’s efficiency, the Commission found that those changes raised significant concerns about the continuing validity of the justification for tiering. *2023 VRS Compensation Order*, paras. 88-92 (finding it would be premature to abandon tiering but modifying the tiered rate structure to reduce unnecessary inefficiency or inequity in the allocation of TRS Fund resources).

¹⁵⁹ As noted in the *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10889, para. 45, where higher costs are incurred by a relatively large IP CTS provider, it is more likely attributable to business decisions concerning use of contractors as turnkey service providers, prior investments in technology and business processes, and differences in business models, rather than issues of scale.

¹⁶⁰ *See, e.g.*, Hamilton Apr. 9, 2021 *Ex Parte*.

¹⁶¹ *See supra* note 10.

encouraging innovation can continue to be achieved without resorting to the ratemaking challenges, complexities, and potential inefficiencies of a tiered rate structure or a separate small-provider rate.¹⁶²

53. We also emphasize that the Commission is mandated to make TRS available in the most efficient manner, not to ensure that every TRS provider is able to operate successfully, regardless of the cost.¹⁶³ CaptionMate claims that, as a small provider, it offers a service of unique value, targeting a younger demographic and offering captioning in 67 languages.¹⁶⁴ However, the Commission must balance the potential benefits of diverse service offerings with the need for efficiency. To the extent that there is significant demand for multiple-language captioning, the record does not show that it cannot be made available by a provider supported by the TRS Fund at the rates set herein, or through other channels.¹⁶⁵ We also note that the compensation plan adopted herein, which limits the cumulative reduction in the ASR-only compensation rate during the five-year compensation period, allows all providers of ASR-only service to be compensated at a level higher than the current average cost. Thus, small ASR-only providers will also be afforded a period of stability to support their growth under relatively favorable conditions.

2. Estimating IP CTS Expenses

54. *Attribution of Expenses to Service Categories.* We adopt the *Notice's* tentative conclusion that, when possible, providers must directly assign costs to either ASR-only or CA-assisted IP CTS, and when that is not possible, they must reasonably allocate such costs based on direct analysis of the origin of the costs.¹⁶⁶ Where they could not directly attribute costs to one or another service, most providers have allocated joint expenses based on the share of their IP CTS minutes that are ASR-only or CA-assisted. We find this to be a reasonable method.¹⁶⁷

55. *Relevant Cost Data.* Since 2018, the Commission has established the cost basis for IP CTS provider compensation by averaging providers' reported historical expenses for the prior calendar

¹⁶² We also note that none of the IP CTS providers advocating a special small-provider rate offers CA-assisted service. Advocates for accessibility contend that the TRS Fund should not support the provision of IP CTS by providers that do not allow users to select CA-assisted service. TDIforAccess, Inc., et al., Petition for Rulemaking to Require Option for Communications Assistants by Stand-Alone Automatic Captioning Providers, CG Docket Nos. 13-24 and 03-123 (filed May 31, 2024). While we do not prejudice this recently filed petition, the fact that none of the providers subject to the proposed small-provider rate offers a CA-assisted option reinforces our conclusion that the objectives of section 225 would not be served by adopting such a rate.

¹⁶³ Cf. CaptionMate Nov. 30 *Ex Parte* at 2 (urging the Commission to “give new, small providers the same chance to establish a foothold in the IP CTS industry that the existing dominant players had back in 2017-2018”); *id.* at 3 (asking the Commission “to ensure that small providers have a full and fair opportunity to reach out to the capital markets, establish their business, and compete with the larger incumbents”); *see also* Small Providers May 31 Joint *Ex Parte*).

¹⁶⁴ CaptionMate Nov. 30 *Ex Parte* at 1. As of May 22, 2024, CaptionMate's app was only available in English and Spanish, although there were plans for a roll-out of Vietnamese and Chinese versions. *See* CaptionMate May 22 *Ex Parte* at 1.

¹⁶⁵ *See, e.g.*, <https://support.google.com/accessibility/android/answer/9350862?hl=en> (advertising the availability of Live Caption in English, French, German, Italian, Japanese, and Spanish) (last visited July 30, 2024); https://support.zoom.com/hc/en/article?id=zm_kb&sysparm_article=KB0059762#h_9668257228481712859178546 (listing 35 supported languages for automatic captioning of video conferences) (last visited July 30, 2024).

¹⁶⁶ *Notice*, 37 FCC Rcd at 15251, para. 25.

¹⁶⁷ *See* Brattle Report at 26, para. 59 (“[T]here are several methods of allocating common costs, and in the case of a rate-regulated industry such as IP CTS, the physical unit method is usually most appropriate. The physical unit method allocates common costs based on the units produced, which in this case, would be the number of minutes for ASR-only and CA-assisted calls.”).

year (here, 2023) with their projected expenses for the current calendar year (here, 2024).¹⁶⁸ The Commission has found this method to be a useful way to counteract providers' tendency to overestimate future costs.¹⁶⁹ We find no compelling reason for any substantial modification of this approach.¹⁷⁰ IP CTS providers' cost projections in the record do not include such dramatic variations as were raised by VRS provider projections in the recently concluded VRS compensation proceeding.¹⁷¹

56. *Adjustment Factor.* To ensure that compensation for CA-assisted service in the first year of the next period is sufficient to cover likely inflation-related cost increases (offset by productivity related decreases) between Fund Years 2023-24 and 2024-25, we adjust each provider's average allowable expenses for calendar years 2023 and 2024 by 3.77%, which is the change from fourth quarter 2022 to fourth quarter 2023 in the Bureau of Labor Statistics (BLS) index of seasonally adjusted "total compensation for private industry workers in professional, scientific, and technical services."¹⁷² This adjustment uses the same index (described in more detail in Part III.E below) that will be used to adjust compensation for CA-assisted IP CTS in subsequent years of the compensation period.

57. We do not apply an adjustment factor to ASR-only service. As explained in Part III. below, an adjustment factor for ASR-only cost is not needed for this compensation period.

58. *Newly Allowable Cost Categories.* Although we revise several allowable-cost categories, as discussed in Part III.B above, the record does not indicate that these changes will result in any significant increase in the estimated cost of service. Previously non-allowable expenses reported for numbering activities are identified by each IP CTS provider in its annual cost report. However, because most IP CTS users do not require the assignment of numbers, average per-minute expenses reported for number assignment are less than \$.001 per minute, resulting in only a trivial cost adjustment. In the other categories of previously non-allowable costs discussed in Part III.B above, only one provider reported relevant non-allowable expenses for 2023 and 2024, and that provider has stated it was not able to segregate proprietary from non-proprietary software costs, or research and development for proprietary equipment from research and development for relay service.¹⁷³ As a result, even this provider did not report any expenses in newly allowable cost categories other than number assignment. Therefore, the changes in allowable cost categories do not result in any adjustment of estimated average allowable per-minute expenses for either CA-assisted or ASR-only IP CTS. For the reasons stated in Part III.B.5 above, costs for customer support provided by field staff remain non-allowable to the extent that they are attributable to installation, maintenance, or customer assistance with provider-distributed devices or software for proprietary devices.

¹⁶⁸ 2020 IP CTS Compensation Order, 35 FCC Rcd at 10882, para. 30.

¹⁶⁹ *Id.*

¹⁷⁰ *Cf.* CaptionCall July 1 *Ex Parte* at 3 (arguing that averaging historical and projected costs "does not adequately account for the need to increase expenses to achieve the Commission's objectives").

¹⁷¹ *See* 2023 VRS Compensation Order, paras. 51-56; *see also id.* para. 56 n.188 ("We do not anticipate that the modifications made below to address these issues will need to be repeated in subsequent compensation proceedings. The current confluence of pandemic-related effects, a sudden change in the inflation rate, shortage of skilled labor, and provider uncertainty regarding future costs is unlikely to recur.").

¹⁷² Bureau of Labor Statistics, BLS Data Viewer, Employment Cost Index, <https://data.bls.gov/dataViewer/view/timeseries/CIS20154000000001> (last visited July 30, 2024).

¹⁷³ CaptionCall reported R&D expenses; however, those expenses are related to development of customer premises equipment, an expense category that remains non-allowable, *see supra* Part III.B.3, and there is no clear separation for expenses that relate to R&D beyond the mandatory minimum standards or access software. *See* Letter from John Nakahata, Counsel to CaptionCall, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed Dec. 4, 2023) (CaptionCall Dec. 4 *Ex Parte*); *see also* CaptionCall Comments at 22-23, Appendix).

59. *Technology Cost.* Some commenters argue that the Commission should adjust allowable expenses to take account of an asserted need for increases in technology investment, beyond the amounts estimated in annual cost reports.¹⁷⁴ Given the excess in average TRS Fund payments above reasonable cost for the last several years, we find it implausible that IP CTS providers have been unable to spend reasonably necessary amounts in technology-related cost categories (engineering and research and development).¹⁷⁵ Due to the extraordinarily high average operating margins recently achieved by IP CTS providers, ample resources have been available to enable providers to purchase any technology they may need or develop it in-house. Further, the proliferation of ASR technology in other areas, including captioning for video conferencing and television, is likely to ensure that ASR development costs need not be borne by IP CTS providers alone.¹⁷⁶ Therefore, contrary to some commenters' claims,¹⁷⁷ we are not persuaded that extraordinary levels of additional support from the TRS Fund will be needed to assist IP CTS providers in securing necessary technology. In addition, we note that our compensation plan limits the cumulative reduction in the ASR-only compensation rate during the next compensation period, providing an above-cost "cushion" as a safeguard against any unpredicted increases in technology-related cost.¹⁷⁸

60. *CA Cost.* Some commenters argue that the current compensation rate is insufficient to support a wage rate for CAs at the level they assert is needed—specifically, the federal contractor minimum.¹⁷⁹ We note that, in contrast with the VRS compensation proceeding, the record here does not show that there is a continuing shortage of people qualified to work as IP CTS CAs.¹⁸⁰ Indeed, the recent substantial decline in CA-assisted IP CTS minutes suggests the opposite.¹⁸¹ On the other hand, we agree with CaptionCall that the quality of CA-assisted service likely will benefit if CAs are paid at higher hourly rates.¹⁸² To this end, as discussed in Part III.D, we prescribe two rates for CA-assisted service: (1) a base rate, which we determine using the established average cost methodology; and (2) a supplemental rate, applicable to the minutes handled by those CAs whose hourly wages exceed a threshold amount.

¹⁷⁴ In the *2023 VRS Compensation Order*, the Commission found that, due to special circumstances, substantial increases in VRS spending on new technology would be necessary—beyond the amounts already reflected in the average allowable expenses reported by VRS providers for the prior year and projected for the current year. *2023 VRS Compensation Order*, paras. 58-65. Therefore, the Commission adjusted the baseline of allowable VRS costs to include estimates of such additional spending. *Id.*

¹⁷⁵ In 2021, IP CTS providers reported average expenses of approximately \$0.93 per minute and were paid approximately \$1.36 per minute from the TRS Fund (\$1.42 in January-June and \$1.30 in July-December), for an operating margin of 46.2%. 2024 TRS Fund Report, Exhibit 1-3. In 2022, they reported average expenses of approximately \$0.83 per minute and were paid \$1.30, for an operating margin of 56.9%. *Id.* In 2023, they reported average expenses of approximately \$0.72 per minute and were paid \$1.30, for an operating margin of 80.6%. *Supra* Table 1.

¹⁷⁶ As noted in the preceding paragraph, providers have not reported incurring any additional research and development expenses for 2023 and 2024 in the newly allowable category of expenses for research and development to improve IP CTS beyond what is necessary to meet minimum TRS standards.

¹⁷⁷ See, e.g., CaptionCall Comments at 19-23; Letter from Michael Strecker, ClearCaptions, and Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, at 14 (filed Dec. 19, 2023).

¹⁷⁸ See *infra* Part III.D.2.

¹⁷⁹ See, e.g., CaptionCall May 23 *Ex Parte* at 5-6.

¹⁸⁰ Cf. *2023 VRS Compensation Order*, paras. 52, 59.

¹⁸¹ Monthly CA minutes declined from 36.3 million in January 2022 to a projected 7.9 million in January 2024. ASR-Only and CA-Assisted Cost and Demand Totals.

¹⁸² CaptionCall July 1 *Ex Parte* at 4-5.

61. *Marketing and Outreach Cost.* Some commenters contend that the Commission should set rates that provide an additional incentive to engage in marketing and outreach, e.g., “to ensure the IP CTS industry invests in growth to change lives by reaching and offering the service to more qualifying consumers.”¹⁸³ They claim that only a small fraction of consumers who would benefit from IP CTS are being served.¹⁸⁴ ClearCaptions blames declining compensation rates for causing a reduction in marketing expenditures by providers.¹⁸⁵ According to providers’ cost reports, however, marketing expenditures have *increased* substantially since 2020, both in dollars per minute and as a percentage of total allowable expenses.¹⁸⁶ IP CTS providers reported spending an average of \$.0903 per minute, or 13.0% of total expenses, on marketing in 2023, and projected spending \$.1114 per minute, in 2024, or 15.0% of total expenses, in 2024.¹⁸⁷ These percentages are far higher than in any recent year—and will continue to be supported at that level by the rates set in this Report and Order.¹⁸⁸ Given the significant increase in marketing expenditures, the cost data do not suggest a need to provide additional monetary incentives for providers to find new IP CTS customers.

62. We also do not find it credible that, despite the extraordinarily large operating margins (far above the allowed 10% level) actually earned by providers at the current rate, IP CTS providers have been unable to spend what is needed to market the service to likely customers.¹⁸⁹ Nor do we find it credible that IP CTS providers cannot continue to do so as rates are reduced to allow more reasonable operating margins. In this regard, we note that, despite some commenters’ claims, the number of people in the United States who could benefit from IP CTS is largely a matter of speculation. While ClearCaptions suggests that the estimated 12.8 million U.S. residents with moderate to profound hearing loss are all “potential IP CTS customers,”¹⁹⁰ many individuals who use hearing aids do not need the additional assistance of IP CTS. There are a variety of other sources of communications assistance available to this population, including hearing-aid compatible telephones and mobile phones,¹⁹¹ specialized high-amplification phones, and increasingly, commercially available ASR-enabled telephones and services.¹⁹² In addition, many seniors with moderate to profound hearing loss may be precluded from

¹⁸³ ClearCaptions Comments at 17; CaptionCall May 23 *Ex Parte* at 4-5.

¹⁸⁴ ClearCaptions Comments at 17 (“Research has shown that only approximately four percent of the potential IP CTS customers are receiving IP CTS”); CaptionCall May 23 *Ex Parte* at 4-5.

¹⁸⁵ ClearCaptions Comments at 19.

¹⁸⁶ See 2024 TRS Fund Report, Exh. 1-3.

¹⁸⁷ *Id.* In Exhibit 1-3 of the 2024 TRS Fund Report, there is no line for average per-minute expenses. Average expenses can be derived by subtracting “Operating Margin” from “Total Cost.” This is a significant increase even compared with 2022 levels. See *id.* (showing that IP CTS marketing expenses in 2022 averaged \$0.0703 per minute); cf. Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 13-24, Attach. 1 at 2 (filed May 22, 2024) (ClearCaptions May 22 *Ex Parte*) (asserting that “[p]rovider underspending in marketing and outreach is contributing to decreasing cost per minute”).

¹⁸⁸ As a percentage of average provider expenses, marketing and outreach expenses (as a combined category) declined from 6.7% in 2018 to 5.1% in 2020, likely due to the pandemic, but then increased to 13.0% in 2023, and were projected to reach 15.0% in 2024. 2024 TRS Fund Report, Exh. 1-3.

¹⁸⁹ ClearCaptions Comments at 8.

¹⁹⁰ *Id.* at 17.

¹⁹¹ *Achieving 100% Wireless Handset Model Hearing Aid Compatibility; Improvements to Benchmarks and Related Requirements Governing Hearing-Aid Compatible Mobile Handsets*, WT Docket Nos. 23-388 and 15-285, Notice of Proposed Rulemaking, FCC 23-108 (Dec. 14, 2023).

¹⁹² See, e.g., 2018 *VRS Improvements Order*, 33 FCC Rcd at 5805-06 (describing overmarketing of IP CTS to persons who may be better served by other types of equipment); <https://teltext.com/teltext-glt-w-v2t-10/> (last visited July 30, 2024). Additionally, live captions are available natively on iPhone 11 and later models and on Android

(continued....)

benefitting from a captioning service due to vision-related or cognitive disabilities. We are setting TRS Fund support at a level that should encourage reasonable efforts to promote IP CTS among people who can benefit from it, but there is no evidence to support the assumption that everyone with at least moderate hearing loss needs, wants, and is able to use the service.

3. Operating Margin

63. *Background.* In the *Notice*, the Commission proposed that IP CTS compensation should continue to allow an average operating margin above allowable expenses within the range the Commission found applicable in the *2020 IP CTS Compensation Order*.¹⁹³ That range is 7.6% to 12.35%.¹⁹⁴ The *Notice* also sought comment on whether to continue to set the target operating margin at 10%, the approximate mid-point of that range. Some commenters argue for a higher allowed operating margin. For example, CaptionMate contends that “while 10% is a reasonable operating margin (if all reasonable costs are included and there is some rate security), the FCC should consider this as a floor, rather than a ceiling, for a compensation rate sufficient to promote functionally equivalent telecommunications services.”¹⁹⁵ ClearCaptions urges the Commission to establish a substantially higher range.¹⁹⁶ CaptionCall asserts that “[t]he Commission should re-examine its prior permitted cost-plus operating margin determination entirely because it failed to adjust for the fact that it was determining a cost-plus margin rather than an operating margin as a percentage of revenue, and a more thorough analysis by FTI shows that the specified ten percent margin is insufficient to sustain a healthy TRS company.”¹⁹⁷ Additionally, Hamilton’s expert asserts that “[g]iven the magnitude of disallowed costs, the [operating] margin needs to be at least {[]} based on allowed cost, for Hamilton to make a 10% effective margin.”¹⁹⁸ On behalf of ClearCaptions, FTI submits two versions of a study of operating margins in related industries.¹⁹⁹

64. *Discussion.* We adopt the proposal to maintain the previously established reasonable range of operating margins (7.6%-12.35%), and we set the operating margin for the next period at 10%, the same level set by the Commission in 2020. We find no reason to change the operating margin from the previously allowed level. In particular, the record does not support arguments that the allowed 10% operating margin is insufficient to encourage capital investment in IP CTS.

65. The current range of reasonable operating margins for IP CTS is based on an average of the margins earned in analogous industries, including government contracting and the professional service sector that includes translation and interpretation services, as well as information technology

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phones running Android 11 or higher. “Get live captions of spoken audio on iPhone,” Apple.com, <https://support.apple.com/guide/iphone/get-live-captions-beta-iph0990f7bb/17.0/ios/17.0> (last visited July 30, 2024); Maxwell Holland, “How to Turn On, Use, and Turn Off Live Caption on Android,” Make Use Of (April 13, 2023), <https://www.makeuseof.com/how-to-turn-on-and-use-live-caption-on-android/>.

¹⁹³ *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10880, para. 28; *Notice*, paras. 36-37.

¹⁹⁴ *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10880, para. 28. In the *Notice*, the lower bound of the previously established range was incorrectly stated as 7.75%. *Notice*, 37 FCC Rcd at 15256, para. 36.

¹⁹⁵ CaptionMate Comments at 3.

¹⁹⁶ ClearCaptions Comments at 15.

¹⁹⁷ CaptionCall Reply at 26.

¹⁹⁸ Brattle Reply Report at 11.

¹⁹⁹ See Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, CG Docket Nos. 22-408, 03-123, 13-24, Attach. (filed July 11, 2023) (ClearCaptions July 11 *Ex Parte*); Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, 13-24, Attach. (filed May 18, 2023) (ClearCaptions May 18, 2023 *Ex Parte*).

consulting.²⁰⁰ For CA-assisted IP CTS, like VRS, labor costs continue to comprise a large percentage of total costs. Therefore, we find that the current range of operating margins is appropriate for the same reasons cited in the *2023 VRS Compensation Order*.²⁰¹ ASR-based IP CTS, by contrast, is not labor intensive, as the CAs are replaced by ASR software. Nonetheless, as explained below, we find that the current reasonable range, with the approximate midpoint at 10%, remains appropriate for ASR-based IP CTS.

66. ASR-based IP CTS does not depend on labor to generate captions. In addition to saving on labor costs, it requires even less physical plant than CA-assisted IP CTS, thus saving on capital costs as well.²⁰² Nor is it a very high-risk business. Apart from the spike in demand during the COVID-19 pandemic, demand for IP CTS has shown steady growth since 2015.²⁰³ Further, while other businesses may face price fluctuations based on, for example, changing demand and the pricing decisions of competitors, IP CTS providers can rely on government-established prices that are predetermined for a period of several years.

67. ClearCaptions' expert, FTI, does not provide a convincing explanation of its view that average margins for the competitive telecommunications firms, or for a mix of firms in the communications and information technologies sector, would provide a more appropriate benchmark. As a preliminary matter, we note that FTI's initial study of the margins earned by allegedly comparable firms included telecommunications carriers.²⁰⁴ As explained in prior Commission orders, the operating margin approach was adopted because the Commission recognized that TRS providers are *unlike* the telecommunications industry, in that TRS is not a capital-intensive business.²⁰⁵ Any proposed benchmark that includes the operating margins of telecommunications carriers clearly would not be appropriate for IP CTS.

68. While the most recent analysis submitted by FTI does purport to filter out capital-intensive companies from the sample of information and communications technology firms, the use of a benchmark based on the high technology sector remains flawed, for several reasons.²⁰⁶ First, while ASR-only IP CTS relies on technology, technology costs do not loom large in the providers' cost profiles. Rather, the biggest expense categories in IP CTS providers' cost reports are subcontractor expenses, marketing, and operations support. Engineering expenses—even when combined with R&D—come fourth.²⁰⁷ Second, the FTI analysis looks at a sample of companies with net profit of up to 100%. We are not persuaded that the companies from the sample are comparable to TRS providers. Third, IT companies

²⁰⁰ See *2017 VRS Compensation Order*, 32 FCC Rcd at 5903-05, paras. 24-26.

²⁰¹ See *2023 VRS Compensation Order*, paras. 74-80.

²⁰² See ASR-Only and CA-Assisted Cost and Demand Totals.

²⁰³ See 2023 TRS Fund Report, Exh. 1-3.c (IP CTS Demand Actuals vs. Provider Projections showing IP CTS demand January 2018-January 2023); Rolka Loube Associates LLC, Interstate Telecommunications Relay Services Fund: Payment Formula and Fund Size Estimate, CG Docket Nos. 03-123 and 10-51, Exh. 1-4 (filed by CGB on May 1, 2020) (showing IP CTS demand from January 2015 to March 2020).

²⁰⁴ See ClearCaptions May 18, 2023 *Ex Parte*, Attach.

²⁰⁵ See *2017 VRS Compensation Order*, 32 FCC Rcd at 5903, para. 23 (“[I]n light of the relatively low level of plant investment required for VRS, we conclude that an operating-margin approach, if based on a reasonable estimate of an appropriate margin, is better suited to compensating VRS providers for capital costs”); *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10880 (“By allowing providers a reasonable margin over expenses, which is not tied to the relatively low capital investment in physical plant that is needed for the provision of IP CTS, this will help ensure sufficient investment in the provision of this service”).

²⁰⁶ See ClearCaptions July 11 *Ex Parte*, Attach.

²⁰⁷ See ASR-Only and CA-Assisted Cost and Demand Totals.

typically involve high risk, while the degree of risk faced by IP CTS providers is limited, as discussed above.

69. We do not see a reason why ASR-only IP CTS would have a higher risk level than CA-assisted IP CTS and therefore warrant a higher operating margin. While CA-assisted IP CTS faces some labor market risk, ASR-only IP CTS does not. Both services share a stable demographic from which to draw customers, and predictable support levels. Based on these factors, we find that it is appropriate for ASR-only IP CTS to have the same reasonable range of operating margins as CA-assisted IP CTS.

D. Compensation Period and Rates

1. Compensation Period

70. We adopt a compensation period that begins the first month after the effective date of this Report and Order and ends June 30, 2029—approximately a five-year period, longer than we proposed in the *Notice*.²⁰⁸ We conclude that this period is long enough to give providers some degree of certainty regarding the applicable compensation levels and an incentive to improve efficiency,²⁰⁹ but also short enough to allow timely reassessment of the compensation formulas in response to potential unanticipated cost changes and other significant developments.²¹⁰ We find substantial support in the record for adopting this time frame.²¹¹

2. ASR-Only Rate

71. For ASR-only service, we estimate average cost as follows. First, we total all providers’ reported allowable expenses for 2023 and 2024, respectively (including newly allowable costs that were reported). Next, we divide these results by 2023 and 2024 minutes, to yield average expenses per minute. Then we average the per-minute rates for 2023 and 2024 to get a blended average of expenses per minute for 2023-24. Finally, we add a 10% operating margin. See Table 2 below.

Table 2: Estimating the Current Cost of ASR-Only Service

	2023	2024	Avg. 2023-24
Reported Expenses	\$245,834,161	\$315,003,123	
Newly Allowable Expenses	\$1,081,245	\$55,406	
Total Allowable Expenses	\$246,915,406	\$315,058,529	
Inflation Adjustment (%) ²¹²			
Adjusted Expenses	\$246,915,406	\$315,058,529	
Average Minutes	407,028,250	485,696,932	
Adjusted Expenses per Minute	\$0.61	\$0.65	\$0.63
Operating Margin (%)			10.0%
Average Per-Minute Cost (including operating margin)			\$0.69

²⁰⁸ *Notice*, 37 FCC Rcd at 15253, para. 40.

²⁰⁹ See *Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990*, CC Docket No. 90-571, 8 FCC Rcd 1802, 1806, para. 25 (1993) (noting that setting compensation levels based on averaged provider costs, if recalculated every year, could leave some providers without adequate compensation, even if they are reasonably efficient).

²¹⁰ See *2017 VRS Compensation Order*, 32 FCC Rcd at 5921-22, para. 58.

²¹¹ See *CaptionCall May 23, 2024 Ex Parte* at 7; *CaptionMate May 14 Ex Parte* at 3; *CaptionCall June 3 Ex Parte* at 3 (recommending five-year term because rate stability is needed to make long-term investments)

²¹² No inflation adjustment is made for ASR-only expenses. See *infra* Part III.E.

72. *Glide Path for ASR-Only Rate.* The average per-minute cost (including operating margin) for ASR-only IP CTS for 2023-24 is \$0.69. To fulfill our role as steward of the TRS Fund, it is important that we set a course toward a rate reduction. However, we are concerned that an immediate 47% rate reduction could disrupt the provision of both methods of IP CTS by forcing less efficient providers to immediately adjust their spending to reflect reduced revenue. Further, while we have found the current cost and demand data sufficiently reliable to justify setting a separate ASR-only rate, we also recognize that future cost developments for this service mode are not easy to predict, and that the bifurcation of the rate itself may cause some cost changes over time.²¹³ Therefore, we adopt a variant of the “glide path” approach similar to that used in prior TRS compensation proceedings.

73. Under the approach we adopt, the ASR-only rate will be reduced by approximately 10% annually for the first three years of the period.²¹⁴ Under this approach, the initial ASR-only rate, applicable from the effective date through June 30, 2025, will be \$1.17; the second-year rate, applicable from July 1, 2025, through June 30, 2026, will be \$1.05; the third-year rate, applicable from July 1, 2026, through June 30, 2027, will be \$0.95. For the fourth and fifth years, through June 30, 2029, the ASR-only compensation rate will remain at \$0.95.

74. As discussed above, the cost and demand data now available on ASR-only service, which includes at least 20 months of historical data (as well as 24 months of projected cost data) from every mature IP CTS provider, has significantly increased our confidence that the average per-minute cost of ASR-only service is substantially below the cost of CA-assisted service.²¹⁵ But we acknowledge that ASR is a nascent service,²¹⁶ that ASR-only cost patterns may change over time in unpredicted ways, and that there is room for improvement in the quality of ASR-only service, which could entail increased cost.²¹⁷ By limiting the cumulative reduction of the ASR-only compensation rate during this period, we are able to leave the issue of quantifying such costs to be addressed in the future, based on actual provider cost reports, should that be necessary. At the end of the five-year rate cycle established today, the Commission will be able to assess additional years of ASR-only cost data and adjust costs as necessary at that time.

75. We conclude that this approach provides a sufficient safeguard against the possibility of unexpected increases in ASR-only IP CTS costs during the compensation period, including any plausible need for additional investment in R&D and technology.²¹⁸ In effect, our approach establishes a \$0.95 “floor” on the compensation rate for ASR-only service for the duration of the compensation period, rather

²¹³ See CaptionCall Nov. 21 *Ex Parte* at 6 (urging the Commission to provide a transition of no more than 10% reduction per year, asserting, *inter alia*, that ASR-only IP CTS is a nascent service with no settled cost pattern); Letter from Tamar E. Finn, Counsel to ClearCaptions, to Marlene H. Dortch, FCC, CG Docket Nos. 22-408, 03-123, and 03-24, Attach. at 19 (filed Nov. 22, 2023) (ClearCaptions Nov. 22 *Ex Parte*) (recommending not decreasing any rate by more than 10% per year); CaptionCall June 3 *Ex Parte* at 2 (recommending a 10-per-cent-per-year transition for ASR-only rates).

²¹⁴ As indicated in the previous footnote, there is significant support in the record for a glide path with a 10% “slope.”

²¹⁵ See *supra* para. 25.

²¹⁶ CaptionCall May 23 *Ex Parte* at 6 (explaining that “ASR is still a nascent service, and providers’ historical costs do not reflect a settled cost pattern that can reliably predict future costs”).

²¹⁷ We note that, to the extent that providers compete to provide a superior quality of service, such costs may be incurred regardless of whether the Commission establishes and enforces quality-of-service metrics. See *id.* at 6 (arguing that additional costs will be incurred to meet quality-of-service metrics).

²¹⁸ In any event, the Commission is not precluded from revisiting the compensation plan prior to its expiration, should that be deemed necessary. See *supra* para. 34.

than the \$1.00 or \$0.99 “floor” advocated by some commenters.²¹⁹ Although advocates for a somewhat higher “floor” contend that their preferred level is necessary to ensure sufficient support for specified (but unreported) levels of marketing and technology expenses, as well as non-allowable CPE-related costs,²²⁰ we reject these arguments for the various reasons discussed in Part III.C.2 above.²²¹

3. CA-Assisted Base Rate

76. For CA-assisted service, we establish a base compensation rate by applying the methodology discussed above.²²² We total all providers’ reported allowable expenses for 2023 and 2024 (including newly allowable costs that were reported). We then adjust the totals for inflation. Next, we divide the results by 2023 and 2024 minutes, to yield average expenses per minute. Then we average the per-minute rates for 2023 and 2024 to get a blended average of expenses per minute for 2023-24. Finally, we add a 10% operating margin to arrive at a base rate. See Table 3 below. The cost-based rate for CA-assisted IP CTS is \$1.35, \$0.05 higher than the current rate. This rate will apply in the first year of the new compensation period, Fund Year 2024-25.

Table 3: Base Rate for CA-Assisted Service

	2023	2024	Avg. 2023-24
Reported Expenses	\$144,676,381	\$117,119,751	
Newly Allowable Expenses	\$35,467	0	
Total Allowable Expenses	\$144,711,848	\$117,119,751	
Inflation Adjustment (%)	3.77%	3.77%	
Adjusted Expenses	\$150,167,485	\$121,535,166	
Average Minutes	138,864,229	88,782,094	
Adjusted Expenses per Minute	\$1.08	\$1.37	\$1.23
Operating Margin (%)			10.0%
Cost-Based Rate			\$1.35

77. *Alternative CA-Assisted Rate Proposals.* We decline to adopt the alternative CA-assisted rates recommended by ClearCaptions (\$1.58 per minute), CaptionCall (\$1.67 per minute) and Hamilton (\$1.78 per minute).²²³ The rates recommended by ClearCaptions and CaptionCall are based on their requests that the Commission (1) revisit its longstanding policy disallowing TRS Fund support for the cost of provider-distributed CPE, (2) increase support for CA wages, technology costs, and

²¹⁹ ClearCaptions May 20 *Ex Parte*, Attach. at 10 (advocating \$1 floor); Hamilton June 6 *Ex Parte* at 2 (advocating \$1 floor); CaptionCall July 1 *Ex Parte* at 6 (advocating \$0.99 floor).

²²⁰ ClearCaptions May 20 *Ex Parte*, Attach. at 10; CaptionCall July 1 *Ex Parte* at 6.

²²¹ CaptionCall also contends that the floor it advocates is needed to ensure that the per-minute dollar amount of operating margin earned by a provider from ASR-only service is not lower than the dollar amount of operating margin earned from CA-assisted service. CaptionCall May 23 *Ex Parte* at 6-7. While we do not necessarily agree with the premise of this argument (that provider incentives are based on the per-minute dollar amount of operating margin rather than the percentage of underlying cost that it represents), it is unnecessary to decide this question. As noted above, *supra* paras. 74-75, a \$0.95 rate for ASR-only service still provides a substantial cushion above allowable per-minute expenses, rendering it highly unlikely that the average dollar amount of ASR-only operating margin will fall below the average dollar amount of CA-assisted operating margin.

²²² This is a “base” rate because it is subject to annual adjustment.

²²³ See ClearCaptions May 20 *Ex Parte*; CaptionCall July 1 *Ex Parte*; Hamilton June 6 *Ex Parte* at 2.

outreach/marketing beyond cost-based levels, and (3) increase the allowed operating margin to the 16-21% range.²²⁴ For the reasons stated in Parts III.B.3, C.2, and C.3 above, we decline most of these requests. However, support for CA wages is addressed through a conditional rate supplement, discussed below. Hamilton’s recommended \$1.78 rate is based on its recommendation to use a “mean plus one standard deviation” approach in lieu of average cost,²²⁵ which we decline to adopt for the reasons stated in Part III.C.2.

4. Conditional Supplement to the CA-Assisted Rate

78. As explained in Part III.C.2 above, we seek to ensure that IP CTS providers have the ability to provide a high quality of CA-assisted service. The record reflects that some IP CTS CAs are currently paid below the federal contractor minimum wage (currently \$17.20 per hour).²²⁶ We recognize that there is likely a correlation between the quality of CA-assisted service and the amount of compensation that CAs receive.²²⁷ Therefore, we seek to ensure that providers are able, if they choose, to pay CA wages at least equal to the federal contractor minimum. To this end, we establish a supplemental rate for CA-assisted service, applicable to any of the four providers currently certified to provide CA-assisted service,²²⁸ for those minutes of service for which the CAs producing captions were paid a minimum hourly rate, initially set at \$17.20.²²⁹ We conclude that, in these circumstances, payment of a higher rate for CA service meeting the stated condition will produce service-quality improvements that are approximately commensurate with the higher cost to the TRS Fund, and therefore will not significantly affect the efficiency with which IP CTS is provided.

79. The record contains limited information on the CA wages currently paid by IP CTS providers and their subcontractors. However, we estimate that if CA wages averaged \$17.20 per hour in 2023-24, the average cost of CA service (including a 10% operating margin) would rise by approximately \$0.21.²³⁰ To ensure reasonable compensation for providers of CA-assisted service that raise CA wages to this threshold, we adopt a rate supplement of \$0.21 per minute, initially applicable to those minutes for

²²⁴ CaptionCall July 1 *Ex Parte*; ClearCaptions November 9 *Ex Parte*, Attach. at 14-19.

²²⁵ Hamilton June 6 *Ex Parte* at 2.

²²⁶ See, e.g., CaptionCall July 1 *Ex Parte* at 4-5 (stating that the average hourly wage for CaptionCall’s CAs in 2023 was {{ }}).

²²⁷ As CaptionCall puts it, an average substantially lower than \$17.20 per hour “is not a living wage that will attract CAs and encourage them to stay and develop their expertise. . . . There is no reason why rates for CA-based IP CTS should not support wages at least as high as the federal contractor minimum wage.” *Id.* at 4-5.

²²⁸ The four current providers of CA-assisted service are CaptionCall, ClearCaptions, Hamilton, and InnoCaption.

²²⁹ If we were to set a generally applicable compensation rate for CA-assisted service based on the assumption that, going forward, all IP CTS providers would pay that minimum, we would have no assurance that this reality will match that assumption. Especially in the absence of a labor shortage comparable to that affecting VRS providers, we have less confidence that labor market factors will induce IP CTS providers to pay higher wages to CAs. *Cf.* 2023 VRS Compensation Order, paras. 52, 59.

²³⁰ {{

}} With all CAs paid an average of \$17.20 per hour, staff estimates that industrywide average expenses per minute for CA-assisted service would increase by approximately \$0.19 per minute. See Updated Cost and Demand Reports; May 21 Cost and Demand Supplements (confidential). After application of the 3.77% inflation adjustment (*supra* para. 56) and 10% operating margin (*supra* para. 64), average cost would increase by \$0.21 per minute.

which the CA producing captions is paid at least \$17.20 per hour. The threshold amount of \$17.20 per hour will be adjusted in the second and third years of the compensation period by the same factor applicable to the rates for CA-assisted service.

80. We direct the TRS Fund administrator to issue instructions to the four providers of CA-assisted service defining the method and format by which wage information should be submitted for any CA as to which a provider claims application of the rate supplement. We delegate authority to CGB and OMD to review and approve such instructions.

81. To prevent waste, fraud, and abuse of the TRS Fund, the rule we adopt expressly provides that the initial payment of this compensation supplement is a preliminary payment, conditional on subsequent verification by audit that the CAs producing captions for minutes for which the supplement was paid actually were paid the hourly rate claimed by the provider. In this regard, we note that any of the four IP CTS providers certified for CA-assisted service may request application of the rate supplement to minutes for which captioning was provided by a subcontractor. However, the provider is responsible for ensuring and documenting the accuracy of its representations to the TRS Fund administrator regarding the wages paid to the subcontractor's CAs. Further, a subcontractor's CA wages are equally subject to subsequent verification and audit. In such subsequent audit, if an IP CTS provider fails to produce documentation, satisfactory to the TRS Fund administrator, verifying the hourly rate paid to affected CAs—whether employed by the provider or a subcontractor—then the administrator is entitled to immediately reclaim any prior payments of the rate supplement for minutes handled by such CAs, by offsetting such prior payments against any amounts claimed in the provider's next monthly compensation request.

5. When the Revised Rates Apply

82. To ensure that no party is adversely affected by the timing of this Report and Order, the new rates will not be applicable until the first day of the first month that begins after the effective date of this Report and Order. Therefore, we direct the TRS Fund administrator to continue compensating providers of IP CTS under the current compensation formula of \$1.30 per minute for all service provided through the last day of the calendar month that immediately precedes the effective date of this Report and Order.²³¹ Service provided on or after the first day of the first month that begins after the effective date shall be paid in accordance with the formulas adopted in this Report and Order.²³²

E. Annual Adjustment of Formulas

83. In the *Notice*, the Commission sought comment on whether a price indexing formula, analogous to price-cap factors, should be applied during a multi-year compensation period, and on the appropriate indices to use to reflect inflation and productivity.²³³ For CA-assisted IP CTS, the Commission proposed to use the Bureau of Labor Statistics' Employment Cost Index for "professional, scientific, and technical services" (ECI-PST)—the same index used to annually adjust compensation for VRS and IP Relay, on the basis that this seasonally adjusted index, which includes translation and interpreting services, would more accurately reflect changes in relevant costs than would a more general index of price changes.²³⁴ The Commission also sought comment on whether this index or another index

²³¹ Cf. *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10870-71, para. 11.

²³² For example, if the Order becomes effective on September 15, 2024, IP CTS providers will be paid \$1.30 per minute for all compensable minutes of service provided through September 30, 2024, and will be paid in accordance with the formulas adopted in this Report and Order for all compensable minutes of service provided from October 1, 2024, through June 30, 2027.

²³³ *Notice*, 37 FCC Rcd at 15257, para. 42.

²³⁴ *Id.* at 15258, para. 44.

would be appropriate for ASR-only IP CTS, given that ASR-only IP CTS is not primarily labor based,²³⁵ and how to ensure that productivity is properly accounted for in annual adjustments.²³⁶

84. The record includes varying perspectives on the appropriate approach to adjustments. InnoCaption and CaptionCall both expressed support for the Commission’s proposal.²³⁷ On the other hand, Hamilton is of the view that “if the Commission wants to have a common inflation factor for both CA-assisted and ASR-only services, then the GDP price index (GDP-PI), an inflation factor based on U.S. Gross Domestic Product, would be a good candidate.”²³⁸ These commenters all contend that a productivity adjustment is not necessary.²³⁹

85. For CA-assisted IP CTS, we adopt the proposed ECI-PST index for adjusting the CA-assisted IP CTS compensation formula.²⁴⁰ This approach is consistent with the index currently used to adjust the compensation formulas for VRS and IP Relay.²⁴¹ As with IP Relay and VRS, labor is the largest expense incurred to provide CA-assisted IP CTS and the most likely to cause a cost increase over time.²⁴² And as with VRS and IP Relay, the ECI-PST index tracks an industry sector similar to CA-assisted IP CTS.²⁴³ We assume that this index reasonably captures relevant productivity enhancements as well, and that accordingly, it is not necessary to set a separate productivity factor at this time.

86. For ASR-only IP CTS, we conclude it is unnecessary to adopt an adjustment factor at this time. It is possible that a technology-based service of this kind may exhibit productivity enhancements over time, which may more than offset the general inflation rate. However, we also recognize that technology cost is only one component—and not the largest component—of the cost of ASR-only service.²⁴⁴ We believe that, after five years of additional experience with ASR-only service, the Commission will be better positioned to adopt an appropriate adjustment factor. In the interim, we conclude that an adjustment factor is not needed, as a 10% annual reduction in the ASR-only rate will leave this rate substantially above average 2023-24 cost through the end of the compensation period.

87. As proposed,²⁴⁵ the compensation rule we adopt also provides for annual review and adjustment of any claims for exogenous cost recovery, in accordance with the criteria adopted in the *2020 IP CTS Compensation Order*.²⁴⁶

²³⁵ *Id.*

²³⁶ *Id.* at 15248, para. 45.

²³⁷ See InnoCaption Comments at 14; CaptionCall Comments at 37.

²³⁸ Brattle Report at 31, para. 72.

²³⁹ See Hamilton Comments at ii, 18; InnoCaption Comments at 15; CaptionCall Comments at 37–38; CaptionCall Reply Comments at 20-21.

²⁴⁰ Bureau of Labor Statistics, BLS Data Viewer, Employment Cost Index, <https://data.bls.gov/dataViewer/view/timeseries/CIS20154000000001> (last visited July 30, 2024).

²⁴¹ See *2023 VRS Compensation Order*, para. 121; *2022 IP Relay Compensation Order*, 37 FCC Rcd at 8024, para. 41.

²⁴² See *2023 VRS Compensation Order*, para. 121; *2022 IP Relay Compensation Order*, 37 FCC Rcd at 8024, para. 41.

²⁴³ See *2023 VRS Compensation Order*, para. 121.

²⁴⁴ See ClearCaptions July 1, 2024 *Ex Parte* at 14.

²⁴⁵ *Notice*, 37 FCC Rcd at 15266, Appx. A.

²⁴⁶ *2020 IP CTS Compensation Order*, 35 FCC Rcd at 10886, para. 39.

IV. ORDER

88. In a series of Commission and Bureau orders, the current IP CTS compensation formula, which originally was scheduled to expire on June 30, 2022, has been extended through June 30, 2024.²⁴⁷ We grant, on our own motion, a temporary waiver to further extend the expiration date of the current formula until the first day of the first month after the effective date of this Report and Order.

89. A Commission rule may be waived for good cause shown.²⁴⁸ In particular, waiver of a rule is appropriate where the particular facts make strict enforcement of a rule inconsistent with the public interest.²⁴⁹ In addition, we may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.²⁵⁰ Waiver of a rule is appropriate if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest and will not undermine the policy underlying the rule.²⁵¹

90. We find good cause to grant this further waiver of the expiration date. If we were to let the current compensation plans expire, the cessation of payments to IP CTS providers could cause an interruption of the delivery of these services to consumers with disabilities who rely on them for functionally equivalent communication. Under these circumstances, it is administratively efficient and consistent with prior practice to extend the current compensation formulas.²⁵²

V. PROCEDURAL MATTERS

91. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),²⁵³ requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”²⁵⁴ Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule changes contained in this *Report and Order* on small entities. The FRFA is set forth in Appendix C.

92. *Paperwork Reduction Act – Final.* This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA).²⁵⁵ In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002.²⁵⁶

93. *Congressional Review Act.* The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that this

²⁴⁷ 2022 TRS Funding Order, 37 FCC Rcd at 7670-71, paras. 11-14, 2023 TRS Funding Order, para. 17; November 2023 Extension Order; December 2023 Extension Order.

²⁴⁸ 47 CFR § 1.3 (providing for suspension, amendment, or waiver of Commission rules, in whole or in part, for good cause shown).

²⁴⁹ *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

²⁵⁰ *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), *cert. denied*, 409 U.S. 1027 (1972); *Northeast Cellular*, 897 F.2d at 1166.

²⁵¹ *Northeast Cellular*, 897 F.2d at 1166; *NetworkIP, LLC v. FCC*, 548 F.3d 116, 127-128 (D.C. Cir. 2008).

²⁵² See 2021 VRS Compensation Extension Order, 36 FCC Rcd at 8818, para. 43.

²⁵³ See 5 U.S.C. § 604. The RFA, 5 U.S.C. §§ 601–612, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

²⁵⁴ 5 U.S.C. § 605(b).

²⁵⁵ Pub. L. No. 104-13, 109 Stat. 163 (1995) (codified at 44 U.S.C. §§ 3501-3520).

²⁵⁶ Pub. L. No. 107-98 (codified at 44 U.S.C. 3506(c)(4)).

rule is “non-major” under the Congressional Review Act.²⁵⁷ The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).²⁵⁸

VI. ORDERING CLAUSES

94. Accordingly, IT IS ORDERED that, pursuant to sections 1, 2, and 225 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 225, the foregoing Report and Order IS ADOPTED and the Commission’s rules are hereby AMENDED as set forth in Appendix B.

95. IT IS FURTHER ORDERED that, the Report and Order and the amendments to the Commission’s rules SHALL BE EFFECTIVE [**INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER**].

96. IT IS FURTHER ORDERED that the Order SHALL BE EFFECTIVE upon release.

97. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance and Program Management, SHALL SEND a copy of Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A).

98. IT IS FURTHER ORDERED that the Commission’s Office of the Secretary, SHALL SEND a copy of the Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

²⁵⁷ 5 U.S.C. § 804(2).

²⁵⁸ *Id.* § 801(a)(1)(A).

Appendix A

List of Commenting Parties

Comments

CaptionCall, LLC (CaptionCall)

CaptionMate, LLC (CaptionMate)

ClearCaptions, LLC (ClearCaptions)

Hamilton Relay, Inc. (Hamilton)

Hearing Loss Association of America (HLAA), Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), Communication Service for the Deaf (CSD), National Association of the Deaf (NAD), Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC) (collectively, AARO)

Mezmo Corporation (dba InnoCaption) (InnoCaption)

Ultratec, Inc. (Ultratec)

Reply Comments

CaptionCall

ClearCaptions

Hamilton

Hearing Loss LIVE! (HLL)

Marc Safman

Appendix B

Final Rules

The Federal Communications Commission amends 47 CFR part 64 as follows:

PART 64 - MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

1. The authority citation for part 64 continues to read as follows:

Authority: 47 U.S.C. 151, 152, 154, 201, 202, 217, 218, 220, 222, 225, 226, 227, 227b, 228, 251(a), 251(e), 254(k), 255, 262, 276, 403(b)(2)(B), (c), 616, 617, 620, 1401–1473, unless otherwise noted; Pub. L. 115–141, Div. P, sec. 503, 132 Stat. 348, 1091.

Subpart F - Telecommunications Relay Services and Related Customer Premises Equipment for Persons With Disabilities

2. The authority citation for subpart F continues to read as follows:

Authority: 47 U.S.C. 151–154; 225, 255, 303(r), 616, and 620.

3. Add § 64.641 to subpart F to read as follows:

§ 64.641 Compensation for Internet Protocol Captioned Telephone Service.

(a) *Captioning with only automatic speech recognition technology.* For the period from **[INSERT DATE THAT IS THE FIRST DAY OF THE FIRST MONTH THAT BEGINS AFTER THE EFFECTIVE DATE]** through June 30, 2029, TRS Fund compensation for the provision of Internet Protocol Captioned Telephone Service when captioning is produced using only automatic speech recognition technology (ASR-only IP CTS) shall be as described in this paragraph.

- (1) *Initial Rate.* For the period from **[INSERT DATE THAT IS THE FIRST DAY OF THE FIRST MONTH THAT BEGINS AFTER THE EFFECTIVE DATE]**, through June 30, 2025, the Compensation Level for ASR-only IP CTS shall be \$1.17 per minute.
- (2) *Second Year Rate.* For the period from July 1, 2025, through June 30, 2026, the Compensation Level for ASR-only IP CTS shall be \$1.05 per minute.
- (3) *Rates for Subsequent Years.* For the period from July 1, 2026, through June 30, 2029, the Compensation Level for ASR-only IP CTS shall be \$0.95 per minute.

(b) *Captioning with communications assistants.* For the period from **[INSERT DATE THAT IS THE FIRST DAY OF THE FIRST MONTH THAT BEGINS AFTER THE EFFECTIVE DATE]**, through June 30, 2029, TRS Fund compensation for the provision of Internet Protocol Captioned Telephone Service when captioning is produced with communications assistants (CA-assisted IP CTS) shall be as described in this paragraph.

- (1) *Initial Rate.* For the period from **[INSERT DATE THAT IS THE FIRST DAY OF THE FIRST MONTH THAT BEGINS AFTER THE EFFECTIVE DATE]**, through June 30, 2025, the Compensation Level for CA-assisted IP CTS shall be \$1.35 per minute.
- (2) *Succeeding Years.* For each succeeding TRS Fund Year through June 30, 2029, the per-minute CA-Assisted Compensation Level shall be determined in accordance with the following equation:

$$L_{FY} = L_{FY-1} * (1 + AF_{FY})$$

where L_{FY} is the CA-Assisted Compensation Level for the new Fund Year, L_{FY-1} is the CA-Assisted Compensation Level for the previous Fund Year, and AF_{FY} is the Adjustment Factor for the new Fund Year.

- (3) *Adjustment Factor.* The Adjustment Factor for a Fund Year (AF_{FY}), to be determined annually on or before June 30, is equal to the difference between the Initial Value and the Final Value, as

defined herein, divided by the Initial Value. The Initial Value and Final Value, respectively, are the values of the Employment Cost Index compiled by the Bureau of Labor Statistics, U.S. Department of Labor, for total compensation for private industry workers in professional, scientific, and technical services, for the following periods:

(i) Final Value - The fourth quarter of the Calendar Year ending 6 months before the beginning of the Fund Year; and

(ii) Initial Value - The fourth quarter of the preceding Calendar Year.

(c) *Supplemental Compensation for CA-assisted IP CTS.* For the period from **[INSERT DATE THAT IS THE FIRST DAY OF THE FIRST MONTH THAT BEGINS AFTER THE EFFECTIVE DATE]**, through June 30, 2029, Supplemental Compensation for CA-assisted IP CTS may be paid in accordance with this paragraph to any of the following four IP CTS providers currently certified to provide CA-assisted IP CTS: CaptionCall, ClearCaptions, Hamilton, InnoCaption (Certified Providers).

(1) *Initial Rate.* For the period from **[INSERT DATE THAT IS THE FIRST DAY OF THE FIRST MONTH THAT BEGINS AFTER THE EFFECTIVE DATE]**, through June 30, 2025, the Supplemental Compensation Rate for CA-assisted IP CTS shall be \$0.21 per minute. This rate shall be paid, in addition to the compensation defined in paragraph (b) of this section, for all compensable minutes of CA-assisted service provided by a Certified Provider for which the communications assistant producing captions was paid an hourly wage of at least \$17.20 (the Minimum Hourly Wage).

(2) *Succeeding Years.* For each succeeding TRS Fund Year through June 30, 2029, the per-minute Supplemental Compensation Rate for CA-assisted IP CTS shall be determined in accordance with the following equation:

$$L_{FY} = L_{FY-1} * (1 + AF_{FY})$$

where L_{FY} is the CA-Assisted Compensation Level for the new Fund Year, L_{FY-1} is the CA-Assisted Compensation Level for the previous Fund Year, and AF_{FY} is the Adjustment Factor for the new Fund Year, as defined by paragraph (b)(3) of this section. This rate shall be paid, in addition to the compensation defined in paragraph (b) of this section, for all compensable minutes of CA-assisted service provided by a Certified Provider for which the communications assistant producing captions was paid a Minimum Hourly Wage of at least the amount determined by the following equation:

$$W_{FY} = W_{FY-1} * (1 + AF_{FY})$$

where W_{FY} is the Minimum Hourly Wage for the new Fund Year, W_{FY-1} is the Minimum Hourly Wage for the previous Fund Year, and AF_{FY} is the Adjustment Factor for the new Fund Year, as defined by paragraph (b)(3) of this section.

(3) *Verification and Offset.* The initial payment of Supplemental Compensation for CA-assisted IP CTS is a preliminary payment only and is conditional on subsequent verification by audit that the CAs producing captions for those minutes for which the supplement was paid actually were paid the hourly rate claimed by the provider. The Certified Provider is responsible for ensuring and documenting the accuracy of its representations to the TRS Fund administrator regarding the wages paid to each affected CA, whether such wages were paid by the Certified Provider or by a subcontractor. In such subsequent audit, if a Certified Provider fails to produce documentation, satisfactory to the TRS Fund administrator, verifying the hourly rate paid to affected CAs—whether employed by the Certified Provider or a subcontractor—then the administrator is entitled to immediately reclaim any prior payments of Supplemental Compensation for minutes handled by such CAs, by offsetting such prior payments against any amounts claimed in the provider's next monthly compensation request.

(d) *Exogenous Cost Adjustments.* In addition to the applicable per-minute Compensation Level, an IP CTS provider shall be paid a per-minute exogenous cost adjustment if claims for exogenous cost recovery are submitted by the provider and approved by the Commission on or before June

30. Such exogenous cost adjustment shall equal the amount of such approved claims divided by the provider's projected IP CTS minutes for the Fund Year. An exogenous cost adjustment shall be paid if an IP CTS provider incurs well-documented costs that:

- (i) belong to a category of costs that the Commission has deemed allowable;
- (ii) result from new TRS requirements or other causes beyond the provider's control;
- (iii) are new costs that were not factored into the applicable compensation formula(s); and
- (iv) if unrecovered, would cause a provider's current allowable-expenses-plus-allowed-operating margin to exceed its revenues.

Appendix C

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice of Proposed Rulemaking (Notice)* released in December 2022.² The Federal Communications Commission (Commission) sought written public comment on the proposals in the *Notice*, including comment on the IRFA. No comments were filed addressing the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need For, and Objectives of, the Report and Order

2. Under section 225 of the Communications Act, as amended, the Commission is tasked with ensuring Telecommunications Relay Services (TRS) are available to the extent possible and in the most efficient manner to individuals with disabilities.⁴ The Commission provides compensation for the provision of TRS through the TRS Fund.⁵ To determine the appropriate compensation, the Commission has adopted and periodically reviews a compensation plan for the provision of each form of TRS. Each compensation plan includes a compensation structure and formulas for determining the appropriate compensation, with various inputs, including a “reasonable cost” criteria and historical and expected demand for the provision of TRS.

3. To achieve these requirements, in the *Report and Order*, the Commission establishes multi-year compensation plans for Internet Protocol Captioned Telephone Service (IP CTS), a form of TRS that enables individuals with hearing loss to both read captions and use their residual hearing to understand a telephone conversation.⁶ To provide the appropriate compensation for the provision of, and continued availability of IP CTS, the Commission adopts separate compensation levels for IP CTS using only automatic speech recognition technology (ASR-only IP CTS) and IP CTS provided with communications assistants (CA-assisted IP CTS). Establishing two compensation formulas gives the Commission the ability to encourage the provision of both ASR-only IP CTS and CA-assisted IP CTS, while limiting the burden to the TRS Fund.

4. For ASR-only IP CTS, the Commission adopts a compensation plan that reduces the ASR-only rate in stages, giving the Commission an opportunity to reassess the reasonable cost of ASR-only IP CTS, in light of future developments, before the rate actually reaches the cost-based level indicated by current cost data. For CA-assisted IP CTS, the Commission adopts a compensation plan that addresses cost changes due to inflation. The Commission also updates the reasonable cost criteria to improve the ability of IP CTS providers to provide and receive compensation for IP CTS, whether provided as ASR-only IP CTS or CA-assisted IP CTS. The Commission takes these steps to ensure the

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. § 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² *Internet Protocol Captioned Telephone Service Compensation; Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 22-408, 13-24, and 03-123, Notice of Proposed Rulemaking and Order on Reconsideration, FCC 22-97 (Dec 22, 2022) (*Notice*).

³ 5 U.S.C. § 604.

⁴ 47 U.S.C. § 225(b)(1). TRS are “telephone transmission services that provide the ability for an individual who is deaf, hard of hearing, deaf-blind, or who has a speech disability to engage in communication by wire or radio with one or more individuals, in a manner that is functionally equivalent to the ability of a hearing individual who does not have a speech disability to communicate using voice communication services by wire or radio.” *Id.* § 225(a)(3).

⁵ 47 CFR § 64.604(c)(5)(iii).

⁶ 47 CFR § 64.601(a)(23). “With IP CTS, the connection carrying the captions between the relay service provider and the relay service user is via the [I]nternet rather than the public switched telephone network.” *Id.*

provision of IP CTS in a functionally equivalent manner to persons who are deaf, hard of hearing, DeafBlind, or have speech disabilities.⁷ In doing so, the Commission balances several different factors including regulating the recovery of costs caused by the service, encouraging the use of existing technology and not discouraging or impairing the development of improved technology, and ensuring IP CTS is “available, to the extent possible and in the most efficient manner.”⁸

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

5. There were no comments filed that specifically addressed the proposed rules and policies presented in the IRFA. However, CaptionMate and other small providers raised issues regarding the impact of the proposed rules on small entities. Specifically these providers urged the Commission to adopt a tiered rate structure for IP CTS similar to that found in the *2023 Video Relay Service (VRS) Order*, or alternatively, a separate rate for small providers.⁹ As detailed in the *Report and Order*, the market and structure for VRS are different than that of IP CTS. Therefore, the proposed rate structure for IP CTS or separate small provider rate are not justified and pose potential inefficiencies.¹⁰

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

6. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.¹¹ The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

7. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.¹² The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹³ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.¹⁴ A “small business concern” is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.¹⁵

⁷ 47 U.S.C. § 225(a)(3); 47 CFR § 64.601(a)(43).

⁸ 47 U.S.C. § 225.

⁹ CaptionMate Comments at 8; Letter from Joint IP CTS Providers (CaptionMate, Global Caption, Nagish, NExTalk and Rogerveoice), to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 22-408, 03-123, and 13-24 (filed May 31, 2024).

¹⁰ *Report and Order* Part III.C.1.

¹¹ 5 U.S.C. § 604(a)(3).

¹² *Id.* § 604(a)(4).

¹³ *Id.* § 601(6).

¹⁴ *Id.* § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

¹⁵ 15 U.S.C. § 632.

8. The policies adopted in the *Report and Order* will affect obligations of IP CTS providers. Neither the Commission nor the SBA have developed a small business size standard specifically for TRS providers. All Other Telecommunications is the closest industry with a SBA small business size standard. There are currently nine IP CTS providers.

9. *All Other Telecommunications*. This industry is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.¹⁶ This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.¹⁷ Providers of Internet services (e.g. dial-up ISPs) or Voice over Internet Protocol (VoIP) services, via client-supplied telecommunications connections are also included in this industry.¹⁸ The SBA small business size standard for this industry classifies firms with annual receipts of \$35 million or less as small.¹⁹ U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.²⁰ Of those firms, 1,039 had revenue of less than \$25 million. Based on this data, the Commission estimates that the majority of “All Other Telecommunications” firms can be considered small.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

10. The provider compensation plan adopted in the *Report and Order* clarifies certain existing reporting, recordkeeping, and other compliance requirements for small entities. The adopted rules establish the compensation structure for IP CTS providers which may impose additional costs for small providers. The Commission retains the status quo of continuing to require IP CTS providers, including small providers, to file annual cost and demand data reports with the TRS Fund administrator. The Commission clarifies the data related to engineering, research and development, and communications assistant costs that shall be collected in the providers’ annual cost and demand data filing. While there are no new or additional burdens on IP CTS providers to file these reports, small entities may need to hire professionals to complete cost reports with new formulas and calculations such as the glidepath approach for the ASR-only formula for example, so that they may comply with the adopted rules. These calculations and reports must also be adjusted to include certain expenses that were previously not allowable, such as for research and development to enhance functional equivalence of IP CTS; the costs of acquiring North American Numbering Plan (NANP) telephone numbers; and the reasonable costs of developing, maintaining, and providing software and web-based applications that enable users to access IP CTS from off-the-shelf user devices running on widely available operating systems. Although the Commission allows IP CTS providers to recover reasonable costs for numbering, certain software, and certain research and development costs, these allowances do not change the cost categories reported by providers. When it is possible to directly assign costs to either ASR-only or CA-assisted IP CTS, providers must do so, and when that is not possible, they must reasonably allocate such costs based on direct analysis of the origin of the costs themselves.

¹⁶ See U.S. Census Bureau, *2017 NAICS Definition*, “517919 All Other Telecommunications,” <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

²⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

11. The RFA requires an agency to provide, “a description of the steps the agency has taken to minimize the significant economic impact on small entities. . . including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.”²¹

12. The adopted compensation structure and levels will apply only to entities which are, or may become, certified by the Commission to offer ASR-only IP CTS or CA-assisted IP CTS in accordance with the Commission’s rules.²² The Commission adopted these multi-year compensation levels to compensate providers for their reasonable cost of providing service, to reduce the burden on TRS Fund contributors and their subscribers, and to ensure that TRS is made available to the greatest extent possible and in the most efficient manner.²³ Among the steps taken to minimize significant impact on small and other entities is the adoption of separate compensation structures for ASR-only IP CTS and CA-assisted IP CTS based on their reported costs. The compensation for ASR-only IP CTS will be adjusted over a multi-year glide path. The CA-assisted rate will be subject to adjustment based on a factor that reasonably predicts whether relevant costs will rise or fall in the coming years. The compensation period will be effective for approximately five years, which is longer than the three year alternative proposed in the *Notice*, providing an incentive to improve efficiency and reassess formulas in response to unanticipated cost changes. These actions by the Commission should minimize the economic impact for small entities who provide IP CTS.

13. Through comments provided during the rulemaking proceeding, the Commission considered various proposals from small and other entities, and the adopted rules reflect its best efforts to minimize significant economic impact on small entities. Additionally, the Commission considered alternative proposals and weighed their benefits against their potential costs to small and other entities. More specifically, the Commission considered multiple methodologies for compensating IP CTS providers for the provisioning of ASR-only IP CTS and CA-assisted IP CTS, including the current unitary compensation structure and a tiered-rate structure. Given the significant cost difference between CA-assisted and ASR-only captioning, the Commission determined that a single rate at any level would tend to encourage use of the lower-cost ASR-only option, instead of the CA-assisted method that may result in better service for consumers in certain circumstances. Further, in considering a compensation structure, the Commission evaluated specific proposals for the structure and for setting compensation levels. For example, the Commission considered a proposal to adopt a tiered rate structure for IP CTS which suggested that smaller providers with relatively high per-minute costs should be supported by the TRS Fund to offer consumers more choice and to promote innovation.²⁴ However, the Commission did not find that market factors exist to justify tiered rates for small or other providers.

14. In the *Report and Order*, the Commission considered and adjusted the allowable cost categories that it used to determine the appropriate compensation levels for the provisioning of IP CTS to allow small and other providers to recover costs for research and development to enhance functional equivalence, access software, and numbering. These adjustments will help ensure that the provisioning of IP CTS is functionally equivalent. These alternative policy changes, which are adopted in response to comments in the record, help maintain a choice of service offerings for consumers from multiple providers of various sizes. The expansion of allowable cost categories reduces the burden on small and

²¹ 5 U.S.C. § 604(a)(6).

²² See 47 CFR § 64.606(a)(2)-(3), (b)(2).

²³ See 47 U.S.C. § 225(b)(1).

²⁴ See *supra* Part III.C.1.

other IP CTS providers to either incur these costs or reduce the quality of their service. Continuing to require that the allowable costs incurred must be reasonable provides the Commission with sufficient flexibility to ensure that the TRS Fund is not improperly burdened with unnecessary costs that could otherwise have an unintended impact on contributors to the TRS Fund. The Commission considered proposals to adjust costs based on effects of the pandemic on the labor market; however there was no persuasive evidence that these changes were substantial enough to make cost data for 2023 and 2024 unreliable. Further, delaying establishment of separate rates would incentivize providers to reduce use of CA-assisted IP CTS. Additionally, the Commission allowed for an inflation adjustment to reflect current economic realities that could otherwise impose an economic burden on CA-assisted IP CTS providers.

G. Report to Congress

15. The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to Congress pursuant to the Congressional Review Act.²⁵ In addition, the Commission will send a copy of the *Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Report and Order*, and FRFA (or summaries thereof) will also be published in the *Federal Register*.²⁶

²⁵ See 5 U.S.C. § 801(a)(1)(A).

²⁶ *Id.* U.S.C. § 604(b).

**CONCURRING STATEMENT OF
COMMISSIONER BRENDAN CARR**

Re: *Internet Protocol Captioned Telephone Service Compensation; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Misuse of Internet Protocol (IP) Captioned Telephone Service*, CG Docket Nos. 22-408, 03-123, and 13-24, Report and Order and Order (July 31, 2024).

Technological innovations are improving the lives of so many Americans, including individuals with hearing loss. One area where we are seeing this trend is in the market for services that enable individuals with hearing loss to communicate with others by reading captions that are generated during telephone calls. Historically, these captioning services required the participation of a third-party person, known as a communications assistant or CA, to generate the captions. But increasingly, providers of captioning services are generating them by using automatic speech recognition or ASR technologies. This trend is a good thing as it drives down the cost of providing the captioning service while breaking down barriers to innovative and new forms of competition.

In my view, the FCC should be operating consistent with this trend towards technological innovation. That does not mean that the FCC should stop supporting the continued use of CAs in the appropriate circumstances. But the FCC should not work against the pro-consumer movement towards greater reliance on technology either. For this reason, I put forward some ideas that I thought would strike a better balance in terms of the incentives the FCC creates today while ensuring that we manage this program in a fiscally responsible manner. While my specific suggestions did not make it into the final decision today, I appreciate that my colleagues have included changes that can help incentivize continued, long-term investment in ASR technologies. And in light of those changes, I will be concurring in today's decision.