$$E_{s,n} = \sum_{p=1}^{W} \left[T_{p,s} \times FRM_s \times PR_{s,p} - EnF_{s,p} + \left[T_{p,i} \times FRM_i \times Z_{p,i} \times PR_{s,p} \right] \right] \quad \text{(Eq. W-10A)}$$

$$E_{s,n} = \sum_{p=1}^{W} \left[FV_{s,p} - EnF_{s,p} + \left[T_{p,i} \times FR_{p,i} \times Z_{p,i} \right] \right] \quad \text{(Eq. W-10B)}$$

* * * * *

(q) * * *

(3) * * *

(vii) Multiply the total CO_2 and CH_4 mass emissions by survey method and component type determined in paragraph (q)(3)(vi) of this section by the survey specific value for ''k'', the factor adjustment for undetected leaks, where k equals 1.25 for the methods in § 98.234(a)(1), (3), (5), and (6); k equals 1.55 for the method in § 98.234(a)(2); and k equals 1.27 for the method in § 98.234(a)(7).

* * * * *

■ 3. Effective October 4, 2024, amend § 98.236 by revising paragraph (b)(5)(ii)(C) to read as follows

§ 98.236 Data reporting requirements.

* * * * *

(b) * * *

(5) * * *

(ii) * * *

(C) Average time the intermittent bleed natural gas pneumatic devices were in service (*i.e.,* supplied with natural gas) and assumed to be malfunctioning in the calendar year (average value of ''$T_{mal,z}$'' in equation W–1C to § 98.233).

* * * * *

Joseph Goffman,

Assistant Administrator, Office of Air and Radiation.

[FR Doc. 2024–18933 Filed 9–3–24; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 64

[CG Docket Nos. 22–408, 03–123, and 13–24; FCC 24–81; FR ID 241645]

TRS Fund Support for internet Protocol Captioned Telephone Service Compensation

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Federal Communications Commission (Commission or FCC) adopts a revised, five-year plan for support of internet Protocol Captioned Telephone Service (IP CTS) by the Interstate Telecommunications Relay Services Fund (TRS Fund). 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), the Commission establishes 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.

DATES: Effective October 4, 2024.

FOR FURTHER INFORMATION CONTACT: Michael Scott, Consumer and Governmental Affairs Bureau, 202–418–1264, *Michael.Scott@fcc.gov.*

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order and Order (*Report and Order*), in CG Docket Nos. 22–408, 03–123, and 13–24; FCC 24–81, adopted and released on July 31, 2024. The Commission previously sought comment on these issues in a notice of proposed rulemaking, released on December 22, 2022, and published at 88 FR 7049, February 2, 2023 (*NPRM*). The full text of this document can be accessed electronically via the FCC's Electronic Document Management System (EDOCS) website at: *https://docs.fcc.gov/public/attachments/FCC-24-81A1.pdf* or via the FCC's Electronic Comment Filing System (ECFS) website at: *www.fcc.gov/ecfs.* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an email to: *fcc504@fcc.gov* or call the Consumer and Governmental Affairs Bureau at: (202) 418–0530 (voice).

Synopsis

1. Section 225 of the Communications Act of 1934, as amended (the Act), 47 U.S.C. 225, requires the Commission to ensure that telecommunications relay services (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.'' 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.'' 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 internet Protocol (IP)-enabled device via the internet to simultaneously listen to the other party and read captions of what the other party is saying. IP CTS is supported entirely by the TRS Fund, which is composed of mandatory contributions collected from telecommunications carriers and Voice over internet Protocol (VoIP) service providers based on a percentage of each company's annual revenue. 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.

2. 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. In 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.

3. 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). 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. 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). In the *2020 IP CTS Compensation Order,* published at 85 FR 64971, October 14, 2020, 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.

The 2022 Notice of Proposed Rulemaking

4. On December 22, 2022, the Commission released an *NPRM* seeking comment on establishing a revised IP CTS compensation plan. 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.

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

5. *The Need for Separate Rates.* The Commission amends its rules to establish separate rates for CA-assisted and ASR-only IP CTS. Historically, while the Commission has applied separate compensation rates to different relay *services,* the Commission has rarely applied separate rates to different *methods* of providing a *single* relay service. 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. 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. Deferring the adoption of separate formulas 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.

6. *Cost Difference.* The updated cost reports confirm that there is a substantial cost difference between ASR-only and CA-assisted IP CTS. 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. 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.

7. *Benefits of CA-Assisted Service.* The record also confirms that, while consumers increasingly select ASR-only captioning when offered a choice, CA-assisted captioning continues to be preferred for some portion of IP CTS calls. 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. 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. Conversely, maintaining a single rate is likely to reinforce what appears to be a substantial incentive for providers to limit the use of the CA-assisted mode, even where a consumer would prefer it. 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. 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.

8. *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. 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. In 2023, compensation for ASR-only minutes produced an operating margin of $0.70 per minute—116.7% above expenses. 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.

9. *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. 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. The working group, composed of community advocates, IP CTS providers, academia, and subject matter experts from related industries, was tasked by MITRE to: identify and define measures that can be used to quantify and compare caption quality as it relates to effective communication; propose methods for assessing IP CTS using these measures; and identify potential criteria for establishing meaningful thresholds for acceptable caption quality. The working group's report, completed June 5, 2024, includes six recommendations for further study to establish metrics:

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

10. By reaching consensus on a number of issues that had been the subject of dispute among commenters on the *Telephone Caption Metrics*

NPRM, published at 86 FR 7681, February 1, 2021, 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 the Commission to defer the adoption of revised compensation formulas until metrics are in place. The Commission 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.

11. One commenter's expert suggests that rate-setting should be delayed because the compliance cost of meeting such metrics are unknown today. The Commission's exogenous cost recovery criteria provide a mechanism for recovery of such compliance costs in appropriate circumstances.

12. In addition, 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. Adopting bifurcated compensation rates will mitigate such incentives pending further information about the relative quality of the two service modes.

13. *Reliability of Cost Data.* 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 2024—were insufficiently reliable to support a revised compensation plan, and especially the application of different rates to ASR-only and CA-assisted IP CTS. 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. However, now that the record has been updated to include providers' cost and demand 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.

14. 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. As to the effects of the pandemic on labor cost, in the case of IP CTS, the Commission finds no persuasive evidence of any impact that would render the cost data for 2023 and 2024 unreliable. Unlike the supply of Video Relay Service (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. The record—which shows that historical CA-assisted costs increased less than 3% from 2022 to 2023—appears to confirm that any unusual upward trend did not outlast the pandemic.

15. Regarding ASR-only IP CTS, an additional year of cost and demand data has significantly increased the confidence with which the Commission 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. This is substantially more than the 12 months of historical data the Commission ordinarily uses in setting rates. Also, 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. And as noted above, delaying the establishment of a separate rate for ASR-only service will reinforce providers' incentive to decrease reliance on CAs, even where preferred by the consumer or needed for functionally equivalent service. By December 2023, ASR-only minutes increased to an average of 85% of total IP CTS minutes.

16. 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.

17. A commenter'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. 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.

Proposals for Additional Rate Categories

18. *Separate CA-Assisted Rate for CART-Based IP CTS.* The Commission declines to adopt a separate CA-assisted rate for calls that are captioned using the Communications Access Realtime Translation (CART) method, as advocated by InnoCaption. The term *CART* is used in this context to refer to a captioning method whereby a professional stenographer produces captions without any assistance from ASR software. The Commission finds 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. However, except for the conditional rate supplement discussed further below, which is applicable to any qualifying provider of CA-assisted service, including providers using the CART method, the Commission is unpersuaded that any analogous considerations warrant a *further* subdivision of the CA-assisted rate.

19. Although the Commission recognizes 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. 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. Thus, there are now several variants of CA-assisted captioning being used by IP CTS providers—as well as variations in the methods used by providers to determine which service mode should be applied to a call. The process of developing metrics and measures for IP CTS service quality is not yet complete, and the current record does not provide definitive evidence as to whether testing of the methods in use today, using improved measurements, 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, as well as the absence of definitive measurements of service quality, the Commission finds insufficient basis at this time for setting different compensation rates based on the specifics of each CA-assisted captioning method.

20. *Separate ASR-only Rates for Fully Automated and "Hybrid" Providers.* The Commission also declines to adopt a commenter's recommendation that two different compensation rates be set for ASR-only minutes, based on whether the service provider is fully automated, *i.e.,* does not employ CAs for captioning *any* calls, or is a hybrid provider that uses CA-assisted methods for some calls and ASR-only for others. The commenter 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. Currently, no provider uses CAs for every call; therefore, it is not necessary to address this theoretical concern on the current record.

21. The concerns noted above regarding deviations from the Commission's historical practice are also applicable here. In addition, if the Commission adopted the commenter's suggestion, the vast majority of ASR-only minutes would be compensated under the rate established for hybrid providers. 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. 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.

Classification of Calls

22. 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. 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). The Commission concludes that assigning a CA to monitor and correct 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.

23. The Commission is 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. 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 the Commission's bifurcated compensation plan. Therefore, the Commission delegates 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.

24. 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.

Allowable Costs

25. As proposed in the *NPRM,* the Commission expands 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 2023. *See* 88 FR 71994, October 19, 2023 (*2023 VRS Compensation Order*). The Commission declines to revisit the longstanding policy that the TRS Fund does not support the cost of providing, installing, or maintaining customer premises equipment.

26. *Research and Development.* The Commission revises its allowable cost criteria to allow TRS Fund support for the reasonable cost of R&D to enhance the functional equivalence of IP CTS, including improvements in service quality that may exceed the Commission's mandatory minimum TRS standards. As in the case of VRS, the Commission finds 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. 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 TRS and with the Commission's policy of authorizing multiple IP CTS providers to compete with one another based on service quality. 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 the minimum TRS standards. The Commission also finds 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. To establish consistent allowable-cost criteria for all three forms of IP-based TRS, the Commission concludes that the expanded allowability of reasonable research and development costs shall also apply to internet Protocol Relay Service (IP Relay).

27. The Commission 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. However, the Commission 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. The Commission continues to believe that the above incentive structure is a robust safeguard against waste, and agrees with commenters that additional safeguards are not necessary at this time. The Commission stresses 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.

28. *Numbering.* The Commission treats 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. In 2008, the Commission determined that such costs would not be supported by the TRS Fund, 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. 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 the Commission's 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.

29. While the most common IP CTS configuration allows consumers to use existing telephone numbers to place and receive calls over a landline voice service, 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. 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. 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.

30. Therefore, the Commission revises the 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. The Commission stresses 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 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.

31. The Commission also clarifies 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.

32. *Customer Premises Equipment.* The Commission's 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, except where Congress has specifically authorized such support. The *NPRM* did not re-open or seek comment on this issue. Nonetheless, a number of commenters urge the Commission to revisit whether the TRS Fund should support the provision of CPE to IP CTS users. Because this question does not fall within the scope of the *NPRM,* it is not necessary for the Commission to address those comments in this document.

33. Further, even if those comments could be construed as within the scope of the *NPRM,* for the reasons articulated in the Commission's prior orders, 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. The well-established distinction in the Commission's 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 of the Act 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 of the Act, 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. The Commission has further held that costs 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. The Commission's determinations disallowing CPE costs have been upheld by federal courts of appeals.

34. Contrary to ClearCaptions' argument, a mere analogy between section 225 of the Act and certain provisions in section 254 of the Act, 47 U.S.C. 254, carries no legal weight. TRS support is governed by section 225 of the Act, not section 254 of the Act, and the Commission rejects the suggestion that somehow its 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.

35. In addition, even if the Commission had statutory authority to do so, it is unconvinced that TRS Fund support for provider distribution of user devices—in particular, purpose-built, proprietary equipment—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 service and that has an unusually short useful life—appears inconsistent with the Commission's mandate to make TRS available in the most efficient manner. 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. 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 ''siloing'' TRS users in ways that can hinder access to communication technologies available to mainstream users.

36. The record is clear that IP CTS can be accessed without proprietary equipment, by downloading providers' software applications to smartphones, tablets, and laptops. For example, many providers make their applications available on Google Play and the Apple App Store. Although a commenter argues that such applications are generally impractical for seniors (who comprise the bulk of IP CTS users), a survey 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. In addition, 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 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.

37. *User Access Software.* The Commission adopts its 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. This change harmonizes the cost criteria for IP CTS with those adopted for VRS. 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 the 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.

38. Consistent with its compensation ruling for VRS, the Commission declines 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. 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 the Commission does 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. 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.

39. *Field Staff Visits.* While the Commission did not seek comment on the issue of whether providers should be able to recover the costs associated with deploying their field staff, 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,* 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. 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.

Determination of Cost-Based Rates

40. *Cost Averaging.* The Commission has broad discretion in choosing compensation methodologies and setting compensation rates within the parameters established by section 225 of the Act. To set cost-based benchmarks for IP CTS compensation rates, the Commission continues 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). 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.

41. The Commission maintains 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.

42. According to Hamilton Relay'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.'' 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. The Commission is also unpersuaded that there is justification for replacing the average-cost approach with a ''mean plus one standard deviation'' approach, as advocated by Hamilton Relay. 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.

43. *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 innovation. The Commission adopted tiered rates for VRS due to a combination of specific circumstances that were threatening the viability of competition among VRS providers. In 2020, 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. This remains the case today.

44. *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. *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. 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. 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. *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, provides 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. In summary, given the relative ease of new entry and the presence of vigorous competition based on service quality, the Commission concludes that the goals of offering consumer choice and 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.

45. The Commission also notes that none of the IP CTS providers advocating a special small-provider rate offers CA-assisted service. In a recently filed petition, 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. While the Commission does not prejudge this petition, the fact that none of the providers subject to the proposed small-provider rate offers a CA-assisted option reinforces its conclusion that the objectives of section 225 of the Act would not be served by adopting such a rate.

46. The Commission also emphasizes that it 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. A small provider claims that it offers a service of unique value, targeting a younger demographic and offering captioning in 67 languages. 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. Also, 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.

Estimating IP CTS Expenses

47. *Attribution of Expenses to Service Categories.* The Commission adopts the *NPRM'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. 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. The Commission finds this to be a reasonable method.

48. *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 year (here, 2023) with their projected expenses for the current calendar year (here, 2024). The Commission has found this method to be a useful way to counteract providers' tendency to overestimate future costs. The Commission finds no compelling reason for any substantial modification of this approach. 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.

49. *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, the Commission adjusts 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.'' This adjustment uses the same index that will be used to adjust compensation for CA-assisted IP CTS in subsequent years of the compensation period. The Commission does not apply an adjustment factor to ASR-only service. As explained below, an adjustment factor for ASR-only cost is not needed for this compensation period.

50. *Newly Allowable Cost Categories.* Although the Commission revises several allowable-cost categories, 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, 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. 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 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.

51. *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. Given the excess in average TRS Fund payments above reasonable cost for the last several years, the Commission finds it implausible that IP CTS providers have been unable to spend reasonably necessary amounts in technology-related cost categories (engineering and research and development). 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. 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%. In 2022, they reported average expenses of approximately $0.83 per minute and were paid $1.30, for an operating margin of 56.9%. In 2023, they reported average expenses of approximately $0.72 per minute and were paid $1.30, for an operating margin of 80.6%. 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. As noted above, 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. Therefore, the Commission is 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, the 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.

52. *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. 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. Indeed, the recent substantial decline in CA-assisted IP CTS minutes suggests the opposite. On the other hand, the Commission agrees that the quality of CA-assisted service likely will benefit if CAs are paid at higher hourly rates. To this end, the Commission prescribes two rates for CA-assisted service: a base rate, determined using the established average cost methodology; and a supplemental rate, applicable to the minutes handled by those CAs whose hourly wages exceed a threshold amount.

53. *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 by reaching and offering the service to more qualifying consumers. They claim that only a small fraction of consumers who would benefit from IP CTS are being served. ClearCaptions blames declining compensation rates for causing a reduction in marketing expenditures by providers. 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. 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. These percentages are far higher than in any recent year—and will continue to be supported at that level by the rates set in the *Report and Order.* 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.

54. The Commission also does 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. Nor does the Commission 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, 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,'' 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, specialized high-amplification phones, and increasingly, commercially available ASR-enabled telephones and services. In addition, many seniors with moderate to profound hearing loss may be precluded from benefitting from a captioning service due to vision-related or cognitive disabilities. The Commission is 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.

Operating Margin

55. The Commission adopts the proposal in the *NPRM* to maintain the previously established reasonable range of operating margins (7.6%–12.35%),

and the Commission sets the operating margin for the next period at 10%, the same level set by the Commission in the *2020 IP CTS Compensation Order.* In the *NPRM,* the lower bound of this range was incorrectly stated as 7.75%. The Commission finds 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.

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

57. 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. 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. 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.

58. ClearCaptions' expert, FTI Consulting (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, the Commission notes that FTI's initial study of the margins earned by allegedly comparable firms included telecommunications carriers. 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. Any proposed benchmark that includes the operating margins of telecommunications carriers clearly would not be appropriate for IP CTS.

59. 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. 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. Second, the FTI analysis looks at a sample of companies with net profit of up to 100%. The Commission is not persuaded that the companies from the sample are comparable to TRS providers. Third, IT companies typically involve high risk, while the degree of risk faced by IP CTS providers is limited.

60. The Commission does 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, the Commission finds that it is appropriate for ASR-only IP CTS to have the same reasonable range of operating margins as CA-assisted IP CTS.

Compensation Period and Rates

61. *Compensation Period.* The Commission adopts a compensation period that begins the first month after the effective date of this Final Rule and ends June 30, 2029—approximately a five-year period. The Commission concludes that this period is long enough to give providers some degree of certainty regarding the applicable compensation levels and an incentive to improve efficiency, but also short enough to allow timely reassessment of the compensation formulas in response to potential unanticipated cost changes and other significant developments. There is substantial support in the record for adopting this time frame.

62. *ASR-only Rate.* For ASR-only service, the Commission estimates average cost as follows. First, the Commission totals all providers' reported allowable expenses for 2023 and 2024, respectively (including newly allowable costs that were reported). Next, the Commission divides these results by 2023 and 2024 minutes, to yield average expenses per minute. Then the Commission averages the per-minute rates for 2023 ($0.61) and 2024 ($0.65) to get a blended average of expenses per minute for 2023–24 ($0.63). Finally, the Commission adds a 10% operating margin, for an average per-minute cost of $0.69.

63. *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 the Commission's role as steward of the TRS Fund, it is important to set a course toward a rate reduction. However, the Commission is 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 the Commission has found the current cost and demand data sufficiently reliable to justify setting a separate ASR-only rate, future cost developments for this service mode are not easy to predict, and the bifurcation of the rate itself may cause some cost changes over time. Therefore, the Commission adopts a variant of the ''glide path'' approach similar to that used in prior TRS compensation proceedings.

64. Under this approach, the ASR-only rate will be reduced by approximately 10% annually for the first three years of the period. 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.

65. 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 the Commission's confidence that the average per-minute cost of ASR-only service is substantially below the cost of CA-assisted service. But the Commission acknowledges that ASR is a nascent service, 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. 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. By limiting the cumulative reduction of the ASR-only compensation rate during this period, the Commission is 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 in the Order, the Commission will be able to assess additional years of ASR-only cost data and adjust costs as necessary at that time.

66. The Commission concludes 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. In effect, this approach establishes a $0.95 ''floor'' on the compensation rate for ASR-only service for the duration of the compensation period, rather than the $1.00 or $0.99 ''floor'' advocated by some commenters. 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, the Commission rejects these arguments for the various reasons discussed above. In any event, the Commission is not precluded from revisiting the compensation plan prior to its expiration, should that be deemed necessary.

67. A commenter 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. While the Commission does 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. 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.

68. *CA-Assisted Rate.* For CA-assisted service, the Commission establishes a base compensation rate by applying the methodology discussed above. This is a ''base'' rate because it is subject to annual adjustment. The Commission totals all providers' reported allowable expenses for 2023 and 2024 (including newly allowable costs that were reported), and then adjusts the totals for inflation. Next, the Commission divides the results by 2023 and 2024 minutes, to yield average expenses per minute. Then the Commission averages the per-minute rates for 2023 ($1.08) and 2024 ($1.37) to get a blended average of expenses per minute for 2023–24 ($1.23). Finally, the Commission adds a 10% operating margin to arrive at a base rate. This rate for CA-assisted IP CTS is $1.35, $0.05 higher than the current rate and will apply in the first year of the new compensation period, Fund Year 2024–25.

69. *Alternative CA-Assisted Rate Proposals.* The Commission declines 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). The rates recommended by ClearCaptions and CaptionCall are based on their requests that the Commission revisit its longstanding policy disallowing TRS Fund support for the cost of provider-distributed CPE, increase support for CA wages, technology costs, and outreach/marketing beyond cost-based levels, and increase the allowed operating margin to the 16–21% range. For the reasons stated above, the Commission declines 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, which the Commission declines to adopt for the reasons stated earlier.

70. *Conditional Supplement to the CA-Assisted Rate.* The Commission seeks 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). There is likely a correlation between the quality of CA-assisted service and the amount of compensation that CAs receive. Therefore, the Commission seeks to ensure that providers are able, if they choose, to pay CA wages at least equal to the federal contractor minimum. To this end, the Commission establishes a supplemental rate for CA-assisted service, applicable to any of the four providers currently certified to provide CA-assisted service (CaptionCall, ClearCaptions, Hamilton, and InnoCaption), for those minutes of service for which the CAs producing captions were paid a minimum hourly rate, initially set at $17.20. If the Commission 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, the Commission would have no assurance that reality will match that assumption. Especially in the absence of a labor shortage comparable to that affecting VRS providers, the Commission has less confidence that labor market factors will induce IP CTS providers to pay higher wages to CAs. The Commission concludes 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.

71. The record contains limited information on the CA wages currently paid by IP CTS providers and their subcontractors. However, the Commission estimates 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. To ensure reasonable compensation for providers of CA-assisted service that raise CA wages to this threshold, the Commission adopts a rate supplement of $0.21 per minute, initially applicable to those minutes for 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.

72. The Commission directs 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. The Commission delegates authority to the Consumer and Governmental Affairs Bureau and the Office of the Managing Director to review and approve such instructions.

73. To prevent waste, fraud, and abuse of the TRS Fund, the rule 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, 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.

74. *When the Revised Rates Apply.* To ensure that no party is adversely affected by the timing of the *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 the *Report and Order.* Therefore, the Commission directs 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 the *Report and Order.* Service provided on or after November 1, 2024, shall be paid in accordance with the formulas adopted in *Report and Order.*

Annual Adjustment of Formulas

75. For CA-assisted IP CTS, as a price indexing formula to be applied during the compensation period to reflect inflation and productivity, the Commission adopts its proposal 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. This approach is consistent with the index currently used to adjust the compensation formulas for VRS and IP Relay. 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. And as with VRS and IP Relay, the ECI–PST index tracks an industry sector similar to CA-assisted IP CTS. The Commission assumes 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.

76. For ASR-only IP CTS, the Commission concludes 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, technology cost is only one component—and not the largest component—of the cost of ASR-only service. 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, the Commission concludes 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.

77. As proposed in the *NPRM,* the compensation rule also provides for annual review and adjustment of any claims for exogenous cost recovery, in accordance with the criteria adopted in 2020.

Final Regulatory Flexibility Analysis

78. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission incorporated an Initial Regulatory Flexibility Analysis (IRFA) in the. The Commission sought written public comment on the proposals in the *NPRM,* including comment on the IRFA. No comments were filed addressing the IRFA.

79. *Need for, and Objectives of, Report and Order.* In the *Report and Order,* pursuant to 47 U.S.C. 225, the Commission adopts multi-year compensation plans for IP CTS. 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. 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 provision of IP CTS in a functionally equivalent manner to persons who are deaf, hard of hearing, DeafBlind, or have speech disabilities.

80. *Description and Estimate of the Number of Small Entities to Which the Rules Will Apply.* The policies adopted in the *Report and Order* will affect obligations of IP CTS providers. Neither the Commission nor the SBA has developed a small business size standard specifically for TRS providers. All Other Telecommunications is the closest industry with an SBA small business size standard.

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

82. *Steps Taken To Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered.* 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. 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. 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 *NPRM,* 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.

83. 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. The Commission adjusted the allowable cost categories that it considers in determining the appropriate compensation formulas for the provisioning of IP CTS to allow small and other providers to recover costs and benefit economically from the increased compensation they will receive.

Ordering Clauses

84. Pursuant to sections 1, 2, and 225 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 225, the Report and Order is ADOPTED and the Commission's rules are hereby AMENDED as set forth.

Congressional Review Act

85. The Commission sent a copy of the Report and Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. 801(a)(1)(A).

Final Paperwork Reduction Act of 1995 Analysis

86. The *Report and Order* does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104–13. 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 Reduction Act of 2002, Public Law 107–198. *See* 44 U.S.C. 3506(c)(4).

List of Subjects in 47 CFR Part 64

Individuals with disabilities, Telecommunications, Telephones.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 64 as follows:

PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

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

■ 1. The authority citation for part 64, subpart F, continues to read as follows:

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

■ 2. Add § 64.641 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 November 1, 2024, 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 (a).

(1) *Initial rate.* For the period from November 1, 2024, 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 November 1, 2024, 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 (b).

(1) *Initial rate.* For the period from November 1, 2024, 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:

Equation 1 to Paragraph (b)(2)

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

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 in paragraphs (b)(3)(i) and (ii) of this section, 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 November 1, 2024, through June 30, 2029, Supplemental Compensation for CA-assisted IP CTS may be paid in accordance with this paragraph (c) 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 November 1, 2024, 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.* (i) For each succeeding TRS Fund Year through June 30, 2027, the per-minute Supplemental Compensation Rate for CA-assisted IP CTS shall be determined in accordance with the following equation:

Equation 2 to Paragraph (c)(2)(i)

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

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.

(ii) The rate in paragraph (c)(2)(i) of this section 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:

Equation 3 to Paragraph (c)(2)(ii)

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

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:

(1) Belong to a category of costs that the Commission has deemed allowable;

(2) Result from new TRS requirements or other causes beyond the provider's control;

(3) Are new costs that were not factored into the applicable compensation formula(s); and

(4) If unrecovered, would cause a provider's current allowable-expenses-plus-allowed-operating margin to exceed its revenues.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 200124–0029; RTID 0648–XE221]

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; 2024 Red Snapper Private Angling Component Closure in Federal Waters off Texas

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; closure.

SUMMARY: NMFS announces a closure for the 2024 fishing season for the red snapper private angling component in the exclusive economic zone (EEZ) off Texas in the Gulf of Mexico (Gulf) through this temporary rule. The red snapper recreational private angling component in the Gulf EEZ off Texas closes on September 7, 2024, until 12:01 a.m., local time, on January 1, 2025. This closure is necessary to prevent the private angling component from exceeding the Texas regional management area annual catch limit (ACL) and to prevent overfishing of the Gulf red snapper resource.

DATES: This closure is effective from 12:01 a.m., local time, on September 7, 2024, until 12:01 a.m., local time, on January 1, 2025.

FOR FURTHER INFORMATION CONTACT: Daniel Luers, NMFS Southeast Regional Office, telephone: 727–824–5305, email: *daniel.luers@noaa.gov.*

SUPPLEMENTARY INFORMATION: The Gulf reef fish fishery, which includes red snapper, is managed under the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico (FMP). The FMP was prepared by the Gulf of Mexico Fishery Management Council, approved by the Secretary of Commerce, and is implemented by NMFS under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by regulations at 50 CFR part 622.

The final rule implementing Amendment 40 to the FMP established two components within the recreational sector fishing for Gulf red snapper: the private angling component, and the Federal for-hire component (80 FR 22422, April 22, 2015). Amendment 40 also allocated the red snapper recreational ACL (recreational quota) between the components and established separate seasonal closures for the two components. On February 6, 2020, NMFS implemented Amendments 50 A–F to the FMP, which delegated authority to the Gulf states (Louisiana, Mississippi, Alabama, Florida, and Texas) to establish specific management measures for the harvest of red snapper in Federal waters of the Gulf by the private angling component of the recreational sector (85 FR 6819, February 6, 2020). These amendments allocated a portion of the private angling ACL to each state, and each state is required to constrain landings to its allocation.