subject to the ROSS program from state construction and operating permit requirements, and the ROSS program is not part of the federally-approved SIP.

V. Incorporation by Reference

In this document, EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is proposing to incorporate by reference revisions to Title 35 of Illinois Administrative Code Part 201: Permits and General Provisions, sections 201.103, 201.104 (except for 201.104(b)), 201.146 (except for 201.146(mmm)), 201.500, 201.505, 201.510, 201.515, 201.520, 201.525, 201.530, 201.535, 201.540, 201.600, 201.605, 201.610, 201.615, 201.620, 201.625, 201.630, and 201.635; and Part 211: Definitions and General Provisions, section 211.4720; effective March 24, 2017. EPA has made, and will continue to make, these documents generally available through *www.regulations.gov* and at the EPA Region 5 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

VI. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: July 9, 2018.

Cathy Stepp,

Regional Administrator, Region 5.

[FR Doc. 2018–15252 Filed 7–17–18; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 64

[CG Docket Nos. 13–24 and 03–123; FCC 18–79]

IP CTS Modernization and Reform

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Federal Communications Commission (FCC or Commission) proposes measures to ensure that internet Protocol Captioned Telephone Service (IP CTS) remains sustainable for those individuals who need it by reducing waste and thereby bringing under control the exponential growth of the program. The Commission seeks comment on measures to ensure fair and efficient provider compensation, including compensation for the provision of IP CTS using fully automated speech recognition (ASR); move the compensation rate closer to reasonable cost; expand the IP CTS contribution base; and reduce the risk of providers signing up ineligible customers and encouraging IP CTS usage regardless of a consumer's need for the service. The Commission also seeks comment on IP CTS performance goals and metrics to ensure service quality for users.

DATES: Comments on the Further Notice of Proposed Rulemaking are due September 17, 2018; reply comments on the Further Notice of Proposed Rulemaking are due October 16, 2018. Comments on the Notice of Inquiry are due October 16, 2018; reply comments on the Notice of Inquiry are due November 15, 2018.

ADDRESSES: You may submit comments, identified by CG Docket Nos. 03–123 and 13–24, by either of the following methods:

- *Electronic Filers:* Comments may be filed electronically using the internet by accessing the Commission's Electronic Filing System (ECFS): *https://www.fcc.gov/ecfs/filings.* Filers should follow the instructions provided on the website for submitting comments. For ECFS filers, in completing the transmittal screen, filers should include their full name, U.S. Postal service mailing address, and CG Docket Nos. 03–123 and 13–24.
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Michael Scott, Consumer and

Governmental Affairs Bureau, at (202) 418–1264, or email *Michael.Scott@fcc.gov.*

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Further Notice of Proposed Rulemaking and Notice of Inquiry (Further Notice and NOI), document FCC 18–79, adopted on June 7, 2018, released on June 8, 2018, in CG Docket Nos. 03–123 and 13–24. The Report and Order and Declaratory Ruling, FCC 18–79, adopted on June 7, 2018 and released on June 8, 2018, was published at 83 FR 30082, June 27, 2018. The full text of this document is available for public inspection and copying via the Commission's Electronic Comment Filing System (ECFS), and during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street SW, Room CY–A257, Washington, DC 20554. 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), (844) 432–2272 (videophone), or (202) 418–0432 (TTY). Pursuant to 47 CFR 1.415 and 1.419, interested parties may file comments and reply comments on or before the dates indicated in the **DATES** section. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings,* 63 FR 24121 (1998).

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th Street SW, Room TW–A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of *before* entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street SW, Washington, DC 20554.

This proceeding shall be treated as a ''permit-but-disclose'' proceeding in accordance with the Commission's *ex parte* rules. 47 CFR 1.1200 *et seq.* Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.,* .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

Initial Paperwork Reduction Act of 1995 Analysis

The Further Notice and NOI in document FCC 18–79 seek comment on proposed rule amendments that may result in modified information collection requirements. If the Commission adopts any modified information collection requirements, the Commission will publish another document in the **Federal Register** inviting the public to comment on the requirements, as required by the Paperwork Reduction Act. Public Law 104–13; 44 U.S.C. 3501–3520. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, the Commission seeks comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees. Public Law 107–198; 44 U.S.C. 3506(c)(4).

Synopsis

Further Notice of Proposed Rulemaking

1. IP CTS is a form of TRS that permits an individual who can speak but who has difficulty hearing over the telephone to use a telephone and an internet Protocol-enabled device via the internet to simultaneously listen to the other party and read captions of what the other party is saying. Generally, IP CTS employs two network paths: A connection via the public switched telephone network (PSTN) or a Voice over internet Protocol (VoIP) service for the voice conversation between the parties to the call, and a separate internet connection that transmits the other party's voice from the IP CTS user's phone to a communications assistant (CA) and transmits captions from the CA back to the IP CTS user.

2. When an IP CTS user places or receives a call, he or she is automatically connected to a CA at the same time that the parties to the call are connected. In the most widely used version of IP CTS, the CA then revoices everything the hearing party says into a speech recognition program, which automatically transcribes the words into captions. In a second version, the CA uses stenography to produce the captions, typing the speech content directly into captions. Today, five providers have certification from the Commission to provide IP CTS. All IP CTS minutes are compensated from the interstate telecommunications relay services (TRS) fund (TRS Fund), and, like other forms of internet-based TRS, IP CTS is entirely administered by the Commission.

3. IP CTS growth has been exponential in recent years. From 2011 to 2017, annual IP CTS minutes have grown from approximately 29 million to 363 million. According to the TRS Fund administrator, in 2018–19, IP CTS will represent approximately 78 percent of the total minutes of TRS compensated by the TRS Fund and about 66 percent of total TRS Fund payments to TRS providers. At the same time, the end-user telecommunication revenue base from which IP CTS and other forms of TRS are supported is steadily declining, raising the threat that over the long term, ever-increasing levels of contribution may not be sustainable.

4. One reason for greater usage of IP CTS over other forms of TRS may be the ease and convenience of using IP CTS, including the absence of direct interaction between the parties to the call and the CA. For example, during an IP CTS call, the presence of a CA is not announced to the hearing party, and communication with the CA by the

person who has hearing loss takes place in only one direction. While such ease and convenience facilitate use of the service by people with hearing loss who need it for effective communication, these characteristics also create a risk that IP CTS will be used even when it is not needed.

5. Further, a large portion of the recent growth in IP CTS may be attributable to perverse incentives for providers to market this service to individuals who do not need it and the consequent wasteful use of IP CTS by individuals who could derive equal or greater benefit from less costly alternatives, such as high-amplification phones. Providers engage in a number of marketing practices that likely contribute to waste in the IP CTS program. These include (1) touting the usefulness of IP CTS to anyone with hearing loss—regardless of their level of hearing loss or need for captioning (over other types of assistive or auxiliary devices); (2) linking together amplification and captioning features on IP CTS devices, which causes waste (*e.g.,* when the phone is used by others in a household who may not need captions); (3) failing to effectively assess each individual's need for IP CTS through neutral and independent third-party evaluations before permitting use of the service; (4) engaging in preestablished and sometimes exclusive or joint arrangements with third-party professionals that compromise the objectivity of such assessments; and (5) routinely giving out free IP CTS devices with features, such as added amplification and the ability to create a transcript of the call, that make these products attractive to consumers who may not need captions for functionally equivalent telephone communication. It is the Commission's goal to eliminate provider practices and incentives to promote use of IP CTS by individuals who do not need it, and to ensure that this service remains sustainable for those who actually need it.

IP CTS Compensation

6. From 2011 to 2017, under the Multistate Average Rate Structure Plan (MARS Plan), the IP CTS compensation rate increased from $1.763 to $1.9467 per minute, while average allowable IP CTS expenses dropped from $2.0581 to $1.2326 per minute. In part because of this excessive compensation rate, payments to IP CTS providers from the TRS Fund are putting ever-increasing pressure on a declining TRS Fund contribution base—pressure that sooner or later, if unchecked, will threaten the viability of the TRS program itself.

7. To address this widening gap between compensation and reasonable costs, the Commission, in the Report and Order, ends reliance on the MARS Plan methodology and takes interim steps to move the compensation rate closer to average costs, reducing compensation over a two-year period. Here, the Commission seeks comment on how to set IP CTS compensation rates following this interim period, to allow recovery of reasonable provider costs and ensure that IP CTS is provided in the most efficient manner.

8. The Commission proposes to use average provider costs to set per-minute compensation rates for a multi-year rate period for IP CTS. Such an approach can simplify the rate-setting process, facilitate TRS provider planning and budgeting, and provide incentives for providers to increase their efficiency through innovation and cost reduction. The Commission seeks comment on the costs and benefits of this proposal, including comments on: (1) The reasonableness and allowability of certain provider costs; (2) the specifics of setting a cost-based rate, including issues concerning extension of the ''glide path'' towards a cost-based rate, the use of rate tiers, the duration of the rate period, and within-period rate adjustments; (3) alternative approaches; and (4) compensation for IP CTS using full ASR.

Identifying Eligible IP CTS Costs

9. The Commission seeks comment on the reasonableness of the costs currently reported by IP CTS providers. Do these reported costs, in the aggregate, accurately reflect the actual average costs of providing this service? Below, the Commission discusses whether it should consider placing caps on allowable costs for outreach and marketing. Should the Commission consider placing caps on any other cost categories? Further, should the Commission refine these categories in any way, for example, by requiring providers to provide more detail regarding their indirect expenses? Providers currently report average expenses to the TRS Fund administrator, Rolka Loube, for the following categories of IP CTS costs: Facilities; CA Related; Non-CA Relay Center; Indirect; Depreciation; Marketing; Outreach; and Other.

10. *Subcontractor Expenses.* Expenses reported in the ''Other'' category consist mainly of undifferentiated ''subcontractor expenses.'' The Commission seeks comment on whether the Commission has the authority to, and should, require subcontractors to submit directly to the TRS Fund administrator their underlying cost data for the fees charged to certified IP CTS providers, in accordance with the administrator's instructions and TRS cost categories, to ensure that the reported costs can be reviewed for their accuracy, appropriateness, and reasonableness. As an alternative, the Commission seeks comment on whether to amend its rules to provide that, in the event that a subcontractor accounts for more than a certain threshold percentage of a certified IP CTS provider's total costs, the subcontractor itself shall be deemed a TRS provider and be required to submit an application for certification showing its qualifications to provide service meeting the Commission's minimum standards. The Commission also seeks comment on what the appropriate threshold percentage should be for such a requirement. The Commission invites providers and subcontractors to submit information in this proceeding about the specific subcontractor services provided or received and the basis on which fees for specific services provided by subcontractors should or should not be deemed reasonable costs of providing IP CTS.

11. *Licensing Fees.* The Commission believes a significant portion of subcontractor payments represent licensing fees charged to providers for the use of patents and other intellectual property. As background, when PSTN-based captioned telephone service (CTS) was first authorized in 2003, the Commission recognized that the service was offered at that time solely by Ultratec, Inc. (Ultratec), using its proprietary technology. In authorizing IP CTS in 2007, the Commission continued to express concern about the consequences of a single company having control of CTS technology and conditioned its approval of the proposed IP CTS offering on Ultratec's representation that it would continue to license its captioned telephone technologies, including technologies relating to IP CTS, at reasonable rates.

12. The Commission seeks comment on the circumstances under which license fees paid for technology used to provide IP CTS should be included in allowable costs, and on what method the Commission should use to determine whether license fees for such technology are ''reasonable.'' Should the Commission cap ''reasonable'' licensing fees for such technology, and at what level? In deciding on a method or cap for reasonable license fees, should the Commission consider that this technology is used for a service that is paid for through an FCC fund, and for which there is no bargaining by users as

to its price? Should the Commission also consider the extent to which a single company controls intellectual property that is needed for certain forms of IP CTS, effectively compelling providers to use a proprietary technology, as well as the extent to which there are economic barriers that prevent providers from easily switching technologies—such as providers being locked into proprietary user devices and servers, or having long-term supply contracts with the owner of the technology? To aid this inquiry, the Commission invites parties to submit quantitative data (which may be accompanied by a request for a protective order) on the license fees they currently pay for specific types of IP CTS technology.

13. The Commission also seeks comment on a proposal by Sorenson Communications, Inc. (Sorenson) that allowable IP CTS costs should include the imputed value of intellectual property developed by the IP CTS provider itself. Given that the Commission currently allows TRS providers to recover as an allowable expense the research and development costs incurred to ensure that a relay service meets minimum TRS standards, is it ever appropriate to permit a provider to *also* recover the imputed *value* of the resulting intellectual property? Would such a rule be consistent with using a methodology that is based on compensating providers for their actual reasonable costs? Sorenson also contends that license fees, based on imputed value and paid by an IP CTS provider to its own affiliate for intellectual property developed by the IP CTS provider and then transferred to the affiliate, should be deemed reasonable IP CTS expenses. Should the Commission's Part 32 rule on affiliate transactions of common carriers continue to apply in such cases? Is there any valid reason why the carrier affiliate transaction rule should not apply to a TRS provider, given the potential incentives for self-dealing and the difficulties of objective valuation?

14. *Outreach Expenses.* Commission rules require common carriers to conduct TRS outreach to assure that callers in their service areas are aware of the availability and use of all forms of TRS. For many years, however, the Commission has raised concerns about the effectiveness of outreach efforts on the national level. In 2013, the Commission terminated the allowed recovery of outreach expenses by VRS and IP Relay, intending to centralize the outreach function at the national level. The Commission seeks comment on whether it should allow outreach expenses to be compensable from the TRS Fund as part of an IP CTS provider's reasonable expenses. The Commission invites IP CTS providers to describe the specific types of activities for which they report expenses in this category. In light of the tenfold growth of IP CTS minutes in the last six years, the Commission seeks comment on whether TRS-Fund supported outreach to potential new IP CTS users is currently needed to further the goals of section 225 of the Communications Act of 1934, as amended (the Act). Moreover, considering that unlike VRS and IP Relay, IP CTS calls tend to not immediately be identifiable as relay calls to the non-caption-using party, is outreach to the public needed to encourage hearing individuals to place or accept IP CTS calls to the same extent as for other forms of TRS? If the Commission concludes that some outreach should be supported by the Fund, should it limit allowable outreach expenses to a specified percentage or amount, and, if so, what percentage or amount should that be?

15. *Marketing Expenses.* Marketing has been defined as branded advertising and other promotional activity aimed at encouraging the use of a particular provider's service. Marketing expenses are currently allowable costs. The Commission invites IP CTS providers to describe the specific types of activities for which they report expenses in that category. Given the history of inappropriate IP CTS marketing and the susceptibility of this service to being used regardless of need, the Commission is concerned about having the TRS Fund support marketing activities that have the potential to promote widespread use of the service by individuals who may not need it to obtain functionally equivalent telephone service. Therefore, the Commission seeks comment on whether compensation for marketing expenses should be disallowed or, in the alternative, limited. For example, should the Commission cap such expenses at a specific level, and if so, what would be the maximum percentage of expenses or amount (*e.g.,* per minute) that should be recoverable?

16. *Definitions.* In the event that the Commission decides to treat marketing and outreach differently in terms of allowability, the Commission seeks comment on whether and how to provide more precise definitions of these two expense categories. In general, should the TRS Fund administrator's current definitions of ''outreach'' and ''marketing'' as defined in the Provider Data Collection Form & Instructions, be modified, and if so, in what respects?

17. *Operating Margin.* The Commission seeks comment on whether the operating-margin approach and zone of reasonableness established in 2017 for VRS and used in the Report and Order of document FCC 18–79 in establishing interim IP CTS compensation rates is appropriate for the purpose of setting an IP CTS rate for 2020–21. Are there any material differences between VRS and IP CTS that would justify a different zone than the 7.6%–12.35% range? Have there been changes in capital markets that would support moving the end-points of the range up or down? The Commission also seeks comment on where to set a specific allowed operating margin within the zone of reasonableness.

18. *Historical vs. Projected Costs.* The Commission used a weighted average of providers' historical and projected per-minute costs to set compensation rates in setting interim IP CTS rates in the Report and Order in document FCC 18–79. The Commission seeks comment on whether it should continue to use a weighted average of historical and projected costs in setting compensation rates for IP CTS. Should the Commission take into account the extent to which projections line up with the historical cost trend, and whether there is an adequate explanation when projections deviate significantly from the historical trend?

19. *Further Adjustment of Interim Rates.* In the Report and Order in document FCC 18–79, the Commission set interim compensation rates for 2018–19 and 2019–20 based on previously approved categories of allowable TRS costs and on the information currently available regarding actual costs in the IP CTS context, with the goal of striking a reasonable balance between the need to bring rates in line with costs and reduce the TRS Fund contribution burden, on the one hand, and avoiding rate shock and potential service disruption, on the other. If the Commission determines, based on the record compiled in this rulemaking, that some costs have been incorrectly reported or are otherwise not ''reasonable'' for TRS Fund recovery, should the interim rates should be adjusted to take account of such determinations?

Moving to a Cost-Based Rate

20. In the Report and Order in document FCC 18–79, the Commission reduced the per-minute compensation rate for IP CTS by 10 percent annually, to interim levels of $1.75 for 2018–19 and $1.58 for 2019–20, in order to begin a ''glide path'' toward a cost-based level, using as a reference point the TRS Fund

administrator's current estimate of historical and projected IP CTS expenses for calendar years 2017 and 2018, which average $1.28 per minute. According to the historical cost trend, however, IP CTS costs have been consistently declining over time. Further, the Commission may decide that some previously reported costs should not be recoverable from the TRS Fund.

21. *Need for an Extended Glide Path.* To limit the short-term potential for undesirable loss of competitive alternatives and disruption of service to consumers, should the Commission extend the interim-rate ''glide path,'' and if so, what should the extended glide path look like? In setting the interim rates the Commission found that a 10 percent reduction provided a reasonable ''glide path'' toward a cost-based rate. If IP CTS providers' reasonable costs, as determined based on the record to be compiled, are not substantially lower than the cost estimate the Commission used for the purpose of setting interim rates, it would appear that no extension of the glide path would be needed. The Commission seeks comment on this view. On the other hand, if reasonable provider costs prove to be substantially lower than the current estimate, what transition to a cost-based rate level would be appropriate to ensure a reasonable level of certainty and predictability for IP CTS providers while also ensuring the most efficient use of the TRS Fund? Would the fact that costs have been substantially lower than previously thought mitigate in favor of a longer or shorter glide path?

22. *Tiered Rates.* Some parties have previously expressed concern that, even if costs do not change, setting a compensation rate based on average cost may force some above-average cost providers out of the IP CTS market. In order to encourage smaller competitors to remain in the market, while still narrowing the gap between total compensation and total IP CTS costs, would it be appropriate to adopt a tiered rate structure for IP CTS? In the past, the Commission has found that the use of a single rate based on weighted average costs is appropriate for TRS. Although the Commission has deviated from this principle in setting VRS rates, there are a number of underlying reasons specific to VRS that have justified maintaining a tiered rate structure. The Commission seeks comment on the extent to which unique factors are present in the IP CTS market that would make a tiered rate structure more appropriate than averaged compensation rates. For example, are there barriers to a smaller provider's ability to expand its share of the IP CTS market, despite the unusually fast growth in IP CTS demand? How would tiered rates affect provider incentives to operate more efficiently, improve service quality, or invest in new technology, such as ASR? Are there scale economies in IP CTS that would help identify where to set tier boundaries? In the event that the Commission does adopt tiered rates, how should the tiers be structured to reflect any such scale economies in IP CTS and avoid limiting a provider's incentive to increase their minutes above the next tier boundary? How should a tier structure be updated as the market evolves? How are the economies of scale different for IP CTS using ASR? Finally, how should a tiered structure take account of subcontracted operations?

23. *Emergent Provider Rate.* For VRS, the Commission adopted a special ''emergent provider'' rate, applicable on a temporary basis for newly certified providers and certain other very small providers, in order to encourage new entry and provide appropriate growth incentives. Factors contributing to that decision included a desire to maintain VRS competition in an unbalanced market, the incompleteness of VRS reforms intended to support full interoperability, the extremely wide per-minute cost differentials among VRS providers, and the potential role of smaller providers in offering service features designed for niche VRS market segments. Are these or other factors present in the IP CTS context to justify the adoption of an emergent rate to encourage or assist competitive entry? If so, how should such a rate be designed and implemented?

24. *Rate Period.* The Commission also seeks comment on the appropriate duration of the next rate period. Should the duration be governed solely by the time it will take to reach a cost-based compensation rate—*i.e.,* strictly based on the length of the ''glide path'' that the Commission deems appropriate for transitioning to a cost-based level? Or should other factors be given weight, and if so, what rate period duration would appropriately balance the needs for administrative efficiency, rate certainty, and cost-reduction incentives with the need for a timely review of how IP CTS costs may change in the future, *e.g.,* with the use of ASR?

25. *Price Cap Adjustments.* The Commission seeks comment on whether price-cap factors should be used, and on the appropriate indices to use to reflect inflation and productivity, once a cost-based level has been reached. To what extent should the Commission follow the price cap approach used for IP Relay, or approaches proposed to the Commission for IP CTS?

26. *Exogenous Costs.* The Commission seeks comment on whether to allow adjustment of the compensation rate during the rate period based on exogenous costs. Specifically, should IP CTS providers be permitted to seek compensation for well-documented exogenous 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 rates, and (4) if unrecovered, would cause a provider's current allowable-expenses-plus-operating margin to exceed its IP CTS revenues? Would such allowance for exogenous cost adjustments sufficiently address provider concerns regarding compensation for unforeseeable cost increases?

Alternative Approaches

27. *Alternatives to Averaging Costs.* While the Commission generally has viewed an average-cost approach to rate-setting as beneficial because it encourages higher-cost providers to become more efficient, the Commission seeks comment on whether a different approach could better ensure that functionally equivalent IP CTS is provided in the most efficient manner. For example, should the Commission encourage greater efficiency by setting the compensation rate equal to the costs of the lowest-cost provider—or, to ensure that users have a choice of at least two providers, should the Commission set the rate equal to the costs of the second-lowest-cost provider? To the extent that competition is beneficial to ensuring functional equivalence for IP CTS, what is the optimal number of competitors to ensure that this is achieved ''in the most efficient manner''?

28. *Alternatives to Setting Cost-Based Rates.* Finally, the Commission seeks comment on other approaches to IP CTS compensation that can successfully align the rates for this service with actual provider costs and enable the Commission to provide IP CTS in the most efficient manner. To the extent that commenters wish to suggest alternative market-based approaches that could simplify or otherwise improve the IP CTS compensation rate-setting process, the Commission invites the submission of specific proposals, along with an explanation of how each proposal would successfully align the IP CTS compensation rate with actual provider costs and otherwise advance

the objectives of section 225 of the Act. For example, Sorenson has suggested consideration of holding a reverse auction to set a multi-year compensation rate for IP CTS. How should a reverse auction operate in this context? For example, how many providers should be selected in an auction to serve the IP CTS market, and why? If multiple providers are to be selected, how should bidders' market shares be determined? What would be the costs and benefits of using a reverse auction to set rates, compared to cost-of-service ratemaking?

Setting Compensation for ASR

29. The Commission seeks comment on setting a compensation rate for IP CTS calls using full ASR. First, the Commission seeks comment on whether to set separate rates for ASR-only IP CTS and CA-assisted IP CTS, or a single rate applicable to both. Would applying a single compensation rate to both forms of IP CTS appropriately encourage migration to a more efficient technology, or would it create an undesirable incentive for providers to overuse ASR where it is not the best choice for a particular call? How can the Commission ensure that a single rate does not end up significantly over- or under-compensating providers?

30. If separate rates are applied, should compensation for ASR-only IP CTS calls be based on per-minute intervals, as is done now for IP CTS and for CA-assisted TRS generally, or would it be more consistent with cost causation principles to compensate providers on a one-time or monthly per-user basis—or a combination of the two? If the Commission maintains separate rates, when should an ASR-only IP CTS rate become effective? Should the same rate methodology and rate period for ASR-only IP CTS and CA-assisted IP CTS be used? Should the Commission establish cost-based rates that use an operating margin? Would tiered or emergent-provider rates be appropriate for ASR-only IP CTS? Should the Commission apply price cap adjustments? Would any of the alternative approaches discussed be an appropriate rate methodology for ASR? What additional information, beyond that already required in annual provider cost reports, would be useful in determining an appropriate ASR-only IP CTS rate? How should the Commission compensate IP CTS calls that use both ASR and human intervention? For example, should the Commission limit application of the CA-assisted IP CTS rate to the portion of the call when a CA is actively involved in generating captions? The Commission also seeks comment on how to amend the data requirements for call detail records submitted with requests for compensation, to ensure that the TRS Fund administrator has all of the information necessary to apply the appropriate rate for calls involving ASR.

31. If separate rates are applied, which categories of provider costs are relevant to setting a rate for ASR? In its annual rate report for 2018, Rolka Loube recommends that the Commission establish a separate ASR compensation rate for IP CTS of $0.49 per minute. Rolka Loube arrives at this rate by first disaggregating fixed IP CTS costs, projected for 2018–19 to average $0.3659 per minute, from variable costs, which, for the same period, are projected to average $0.9564 per minute. Rolka Loube then multiplies $1.75 (Rolka Loube's recommended interim rate for CA-assisted IP CTS) by the ratio of fixed IP CTS costs to total IP CTS costs, and rounds up the result to $0.49 per minute. The Commission seeks comment on this rate recommendation and methodology, and invites commenters to suggest alternative rate-setting methods and compensation rates for ASR-based IP CTS.

32. How should overhead and other common costs be allocated between CA-assisted and IP CTS provided using ASR? To what extent would it be appropriate to set the ASR-only IP CTS compensation rate higher than a cost-based level, to create incentives for providers to integrate ASR into their IP CTS platforms where functional equivalence can be achieved? For example, should the Commission allow a higher operating margin in relation to underlying costs for ASR than for human-assisted IP CTS, and what would be an appropriate amount for such additional margin? Conversely, to prevent use of ASR where it might compromise service quality, should the Commission limit the allowance of a higher margin? Or should such an extra margin be diminished over time, based on an expectation of a reduced future need for special incentives to adopt this technology? If the Commission provides a higher margin for ASR as an incentive, should it also make a corresponding downward adjustment in the operating margin for CA-assisted IP CTS, to avoid overcompensation for average costs?

33. Finally, to what extent would it serve the purposes of section 225 of the Act to modify the definition of allowable research and development expenses in order to ensure that ASR development costs are subject to compensation even if such research is not strictly necessary to ensure that a provider complies with the Commission's minimum TRS standards? Alternatively, to the extent that ASR development costs and other ASR start-up costs are not captured in the applicable compensation rate, should the Commission treat such costs as exogenous costs, which may be reimbursed in the same manner and under the same criteria as other exogenous costs? What other factors should the Commission consider in determining compensation for ASR-only IP CTS?

Restructuring the Funding of IP CTS

34. To ensure effective cost recovery for TRS, Congress directed the Commission to prescribe TRS regulations governing the jurisdictional separation of the associated costs, which shall ''generally provide that costs caused by interstate telecommunications relay services shall be recovered from all subscribers for every interstate service and costs caused by intrastate telecommunications relay services shall be recovered from the intrastate jurisdiction.'' 47 U.S.C. 225(d)(3)(B). In 2007, however, to encourage nationwide IP CTS competition that could enhance consumer choice, service quality, and available features, the Commission determined that, on an interim basis, all IP CTS minutes, both interstate and intrastate, would be supported by TRS Fund contributions from carriers' interstate (and international) end-user revenues.

35. *Expanding the TRS Fund Base.* In light of the changes to the IP CTS landscape described above, and to conform the funding of IP CTS to the requirements of section 225 of the Act, the Commission proposes to expand the contribution base for IP CTS to include a percentage of annual intrastate revenues from telecommunications carriers and VoIP service providers, for several reasons.

36. First, the goal of nationwide availability has been fully achieved. IP CTS is offered by five competing providers (as compared to only two providers under a single vendor in 2007) and the service is used extensively nationwide. The burgeoning growth of this service offers evidence that the special arrangement of treating all IP CTS costs as interstate costs is no longer necessary as an ''interim'' measure to spur the development of this service.

37. Second, expanding the TRS Fund contribution base for support of IP CTS to include intrastate revenues would reduce the inequitable TRS support burden borne by those voice service providers whose traffic is primarily

interstate and ensure that a reasonable share of support for IP CTS is obtained from those voice service providers with mostly intrastate traffic. The Commission seeks comment on these beliefs, and on any other benefits or costs that would result from expanding the contribution base for IP CTS to include intrastate voice service revenues.

38. *Implementation.* As the initial step in implementing this proposal—which assumes that, at least for the near term, the total IP CTS revenue requirement (RR) continues to be paid out of the TRS Fund—the TRS Fund administrator would aggregate the total end-user revenue data reported by TRS Fund contributors on Forms 499–A and 499–Q. With approximately 40% of total TRS Fund contributors' end-user revenues classified as interstate and approximately 60% classified as intrastate, the TRS Fund revenue base available to support IP CTS would increase by approximately 150% (60%/40%). Next, the TRS Fund administrator would calculate an IP CTS revenue requirement sufficient to compensate IP CTS providers for their reasonable costs of providing IP CTS. A separate contribution factor or factors would then be developed for the purpose of determining the contributions needed from each TRS Fund contributor for support of IP CTS.

39. Under one possible approach, the TRS Fund administrator could compute a single contribution factor for IP CTS, which would be applied in the same manner to all end-user revenues, both interstate and intrastate, in effect treating the IP CTS revenue requirement as a single pool to which all TRS Fund contributors would pay the same percentage of their total end-user revenues. The Commission seeks comment on whether this approach is reasonable, equitable to all providers, and consistent with the requirements of section 225 of the Act.

40. Under an alternative plan, the IP CTS revenue requirement would be divided into interstate and intrastate portions, based on an estimate of the proportion of IP CTS costs and minutes that are interstate and intrastate, respectively. Separate contribution factors would then be determined for (1) interstate IP CTS, by dividing the interstate IP CTS revenue requirement by total interstate end-user revenues of all TRS contributors, and (2) intrastate IP CTS, by dividing the intrastate IP CTS revenue requirement by total intrastate end-user revenues of all TRS contributors (minus intrastate revenues attributable to states that do not self-administer IP CTS). Under this alternative approach, the contribution factors for interstate and intrastate IP CTS, respectively, would not be the same because the IP CTS revenue requirement would be allocated between the separate jurisdictions based on the percentage of *IP CTS minutes and provider costs* attributed to each jurisdiction, while the contribution base would be allocated based on the percentage of *end-user revenues* allocated to each jurisdiction.

41. Implementation of this second alternative approach would be more complicated, and might involve some additional delay, because it would require the TRS Fund administrator (or the Commission) to estimate the proportions of IP CTS minutes and provider costs that are interstate and intrastate. The Commission seeks comment on whether such a calculation is necessary to ensure that the burden of TRS Fund contributions is distributed equitably among voice service providers and consistently with section 225 of the Act. If so, how should such separation of IP CTS costs and minutes be determined? Are the current separations rules adequate to separate intrastate and interstate IP CTS costs, or would it be necessary to refer this issue to the Federal-State Joint Board on Separations? To the extent that some IP CTS calls cannot currently be identified as either intra- or interstate, should the Commission permit a percentage classification based on traffic studies? Alternatively, should the Commission establish a default proxy allocation, and if so, what should the proxy allocation be? The Commission also seeks comment on any other implementation alternatives that the Commission should consider.

Statutory Authority To Require Intrastate Support of IP CTS

42. *Statutory authority.* The Commission believes it has ample authority to collect contributions from telecommunications carriers' and VoIP service providers' intrastate end-user revenues to support the provision of intrastate IP CTS calls, including in situations where the state does not assume funding responsibility. First, section 225(d)(3) of the Act requires the Commission to prescribe regulations that ''generally'' provide that TRS costs caused by interstate and intrastate jurisdictions are each recoverable from the subscribers of their respective jurisdictions. The Commission consistently has ruled that by use of the term ''generally,'' Congress intended for the Commission to have broad authority to determine how TRS costs will be recovered. It was this authority on which the Commission relied to permit recovery of the costs of intrastate IP CTS, as well as intrastate VRS and intrastate IP Relay calls, from the TRS Fund. Further, section 225(b)(2) of the Act states that ''the Commission [has] the same authority, power, and functions with respect to common carriers engaged in intrastate communication as the Commission has in administering and enforcing the provisions of this subchapter with respect to any common carrier engaged in interstate communication.'' Finally, under section 225 of the Act, where a state does not establish a Commission-certified TRS program, the provision of intrastate TRS must be directly supervised by the Commission. The Commission asks commenters whether they agree that these legislative sources provide ample statutory authority for the Commission to address the support for intrastate IP CTS calls.

43. The Commission also believes section 225 of the Act authorizes the classification of some IP CTS calls as jurisdictionally intrastate. Unlike other forms of internet-based TRS, where one ''leg'' of the end-to-end communication between the parties to the call necessarily takes place via IP facilities, the end-to-end voice communication between the calling party and the called party on an IP CTS call uses the same ten-digit telephone numbers as ordinary voice traffic and is routed via traditional PSTN telephone lines or interconnected VoIP, like any other voice call. Further, the Commission has previously found that the definition of TRS includes transmission using any technology, including internet Protocol, and is ''constrained only by the requirement that such service provide a specific functionality.'' Accordingly, as with a number of other forms of TRS, the Commission believes that when both parties to an IP CTS call are located within the same state, the call should be classified as an intrastate call under section 225 of the Act. The Commission seeks comment on these views.

State Role in the Administration of IP CTS

44. The Commission seeks further comment on whether certified state TRS programs should be allowed or required to take a more active role in the administration of IP CTS. Under section 225(c) of the Act, common carriers may fulfill their obligation to offer TRS throughout the areas in which they offer telephone service ''individually, through designees, through a competitively selected vendor, or in concert with other carriers,'' or by complying with the requirements of

state TRS programs certified by the Commission. Currently, all 50 states plus six U.S. territories have TRS programs certified by the Commission that offer the two forms of TRS currently required for state program certification: TTY-voice and speech-to-speech TRS. Additionally, all TRS state programs offer, oversee, and support a non-IP version of CTS on a voluntary basis.

45. Given their responsibility for administering other forms of TRS (including CTS) and their greater proximity to residents using IP CTS within their jurisdiction, the Commission believes that state TRS programs have the expertise, demonstrated skills, and on-the-ground experience to assume administrative functions with respect to IP CTS. In an earlier phase of this proceeding, however, at least some commenters questioned whether it would be desirable for states to take on IP CTS funding and administration before issues related to user eligibility, uncontrolled growth of IP CTS demand, and standards of service have been addressed at the federal level. Additionally, for some states, it appears that state legislative authority may be needed to allow such a transition. The Commission seeks to update the record on the extent to which states continue to have these various concerns, or whether they would have an interest in voluntarily assuming an administrative role for IP CTS operations. The Commission also seeks comment on how much discretion states that are willing to take on such a role should have in designing their IP CTS programs. In general, a state IP CTS program would remain subject to certification by the Commission, and would be expected to comply with any mandatory minimum TRS standards established by the Commission.

46. To the extent that state TRS programs remain reluctant to assume all obligations associated with operating a TRS program, a more modest approach would be to allow or require state entities to take on particular roles in the administration of IP CTS.

47. *Intrastate Funding.* If the Commission adopts its proposal for IP CTS to be supported in part by intrastate end-user revenues, as proposed above, should state TRS programs be required or permitted to administer intrastate funding for the costs of IP CTS to their residents (*i.e.,* to ''opt out'' of having revenues from their intrastate carriers contributed to the TRS Fund, so that they can handle such funding on their own)? In addition to the jurisdictional separations issues discussed above, if any state chooses to assume responsibility for funding intrastate IP CTS, the TRS Fund's IP CTS revenue requirement would need to be adjusted to reflect that intrastate IP CTS need no longer be supported for that state, by excluding from the intrastate end-user revenues subject to TRS Fund contribution all intrastate revenues attributable to voice service provided in that state. The Commission seeks comment on how this adjustment should be calculated. For example, should the Commission require each TRS Fund contributor to calculate and report their own state-by-state allocation of end-user revenues? Alternatively, should the TRS Fund administrator attribute a portion of some or all contributors' end-user revenues to states based on the most recent state-by-state USF contribution percentages for various categories of telecommunications service, as calculated by the Federal-State Joint Board on Universal Service?

48. *Provider Certification.* Next, the Commission seeks comment on whether state TRS programs should be required or permitted to certify IP CTS providers that are allowed to deliver IP CTS services to the residents of their states. Presently, such provider certifications are handled exclusively by the Commission. If states handle such certifications, to what extent should states be required to offer consumers a choice of providers, given that most state TRS programs presently have a single TRS vendor? Further, the Commission seeks comment on the criteria that states should use for approving certification, and whether this should be consistent across all state programs.

49. If either the funding or certification functions—or the broader function of administering IP CTS—is transferred to state TRS programs, the Commission seeks comment on the amount of time state TRS programs will need to secure the necessary resources and regulatory changes at the local level for their implementation. The Commission also seeks comment on whether and how to define a time ''window'' within which each state that intends to participate in these functions must notify the Commission of such intention.

Ensuring Independent Assessments

50. Information in the record suggests that only a portion of the millions of Americans who have some level of hearing loss require IP CTS to achieve functionally equivalent telephone communication. Because of IP CTS's ease of use and the absence of any direct interaction between the calling parties and the CA, compared with other forms of TRS, it appears more likely that individuals who do not have a disability or who do not require this form of TRS may use it as a convenience, rather than a necessary means to achieve functionally equivalent communications. The Commission is concerned that this trend and the exponential growth in IP CTS have been exacerbated by the failure of user assessments to be sufficiently complete and objective.

51. First, the record indicates that, as currently conducted, user assessments are unlikely to accurately determine whether an individual's hearing loss warrants their use of IP CTS. Specifically, the extent to which an individual's hearing loss affects that person's ability to understand telephonic speech—and, therefore, necessitates the use of IP CTS to communicate by phone—can depend on a number of factors, including the individual's specific decibel levels of hearing loss as affected by different sound frequencies, environmental and background noises, and device distortion. This suggests that an effective assessment of an individual's need for IP CTS should be based on a more specific evaluation than a generalized hearing test or a previously recorded audiogram, and should consider whether an individual's communications needs can be met by other assistive technologies.

52. In order to prevent the waste of TRS Fund resources, the Commission therefore proposes that assessments of IP CTS user need must be specifically focused on the consumer's ability to hear and understand speech over the telephone and on whether the consumer's communications needs can be met by other assistive technologies. The Commission seeks comment on this proposal and invites parties to submit documentation or other evidence confirming whether the assessments currently conducted by health professionals for potential IP CTS users actually include these specific elements.

53. Second, there is evidence that current assessments of users' need for IP CTS are unlikely to be objective. Evidence indicates that third-party professional assessments of need have become an integral part of some providers' marketing plans, such that some third-party professionals—through pre-established and sometimes exclusive arrangements with certain IP CTS providers—have been helping to promote these providers' IP CTS offerings at the same time as they purportedly provide an objective certification of their clients' need for IP

CTS. In light of the benefits derived from such arrangements (*i.e.,* opportunities to sell professional services and hearing aids to new or existing customers), the Commission is concerned that professionals have an incentive to acquiesce to their customers' requests for IP CTS eligibility certification, rather than thoroughly and objectively evaluate their need for IP CTS—even when alternatives to IP CTS often may provide a more cost-efficient and effective means of enabling telephone communication for these individuals.

54. To ensure that eligibility screening of IP CTS users is both neutral and complete, the Commission proposes to amend its rules to require that each prospective IP CTS user undergo an objective assessment by a qualified and independent entity that will determine whether the individual has a hearing loss that necessitates use of captioned telephone service. To ensure that screenings specifically assess the need for IP CTS, the Commission further proposes that each assessment include a functional assessment of each applicant's communication needs, including the extent to which the individual would be able to achieve functionally equivalent telephone service by using an amplified telephone or other assistive technology. The Commission seeks comment on these proposals and rationale. In addition, the Commission seeks comment on two alternative approaches.

55. *Assessments by State Programs.* Having state TRS programs handle IP CTS user eligibility assessments could be an effective means of ensuring that such evaluations are sufficiently thorough and not biased toward the use of IP CTS. These programs often work in conjunction with state EDPs and other state agency programs that have expertise and experience in assessing the types of communication technologies needed by individuals with hearing loss. The Commission seeks comment on whether state TRS programs should be required (as a condition of FCC certification under section 225(f) of the Act) to fulfill this user eligibility obligation—whether on their own, through state equipment distribution programs (EDPs), or through contracting entities.

56. If this approach is adopted, the Commission also seeks comment on how user screenings can be most effectively and efficiently conducted. Should all such assessments comport with certain standards and practices established by the Commission for nationwide application, or should states each be permitted to establish their own eligibility criteria and processes for IP CTS screenings? The Commission also seeks information, if available, on the number of users that each state program likely will be able to screen in a given period of time, such as on a monthly basis. Finally, the Commission seeks comment on the current capacity of state programs to take on this task, and what amount of time may be needed to obtain the necessary resources and begin conducting such assessments.

57. The Commission asks commenters to share information about the costs and benefits of having state programs assume this function, based on state CTS screenings that have taken place to date. Regarding costs, the Commission estimates that the likely cost for state entities to conduct an appropriate evaluation of every new IP CTS user would total approximately $9 million annually. According to some sources, estimates of the cost of a comprehensive hearing evaluation for the purpose of determining whether an individual needs a hearing aid range from $54 to more than $224. The type of evaluation needed to establish eligibility for IP CTS, however, need not include all the elements of a general hearing evaluation—for example, a physical examination of the ear—and therefore may not cost as much as the upper range of a general hearing evaluation. Recently, TEDPA conducted a survey of state equipment distribution programs seeking information on the cost incurred by such agencies in assessing and evaluating a new applicant's qualifications for program services and equipment. Respondents' estimates of the average cost of such assessments or evaluations ranged from $50 at the low end to $250 at the high end. Estimates varied significantly based on whether assessments were conducted at an office, for which the median cost estimate was approximately $100, or at the applicant's home, for which the median cost estimate was approximately $200. Based on the assumption that the majority of assessments would be conducted at an agency's offices, as a preliminary estimate, the Commission estimates the average cost of such an evaluation to be approximately $125 per new user. Assuming no change in the current rate at which new users are being added (*i.e.,* approximately 6,000 new IP CTS users per month), and multiplying that rate by the estimated average cost (*i.e.,* $125 per user), the cost of evaluating new users can be estimated at approximately $750,000 per month, or $9 million per year. The Commission seeks comment on this estimate and the underlying assumptions.

58. To the extent private professional assessments are currently being conducted, the Commission invites providers to submit estimates of how many of their new users currently undergo such evaluations, and it invites parties generally to submit estimates of the costs currently incurred by users, hearing health professionals, and others to complete such evaluations. The Commission estimates that these currently incurred evaluation costs will be saved to the extent that state agencies take over the evaluation function, because such private evaluations will not be necessary.

59. Consistent with the requirement of section 225 of the Act for the costs of providing intrastate TRS ''generally'' to be recovered from each intrastate jurisdiction, the Commission seeks comment on whether states should be permitted to recover expenses associated with such screenings from their intrastate telephone subscribers, much along the same lines that they now recover other costs associated with the provision of intrastate TRS. The Commission further seeks comment on whether a share of the costs of providing these assessments, proportionate to the interstate minutes of use by each state's residents, should be reimbursed to the states by the TRS Fund.

60. Next, the Commission seeks comment on how to ensure that independent screenings are conducted in nonparticipating states that do not have EDPs. For example, should the Commission enter into contracts with third parties, on a national, regional, or local basis, that have the necessary expertise to fill this gap? If so, what qualifications should such parties possess, in terms of administrative capabilities, professional staffing, and experience? The Commission invites state equipment programs and hearing health professionals who have performed assessments of need for CTS or IP CTS to describe what assessment tools they have used to determine whether these services are necessary in addition to or in lieu of other assistive technologies. The Commission further proposes that assessments conducted by such independent contractors adhere to the same criteria and standards as will apply to state programs taking on this function. Additionally, to ensure the neutrality of any screening entity—be it a state program or independent contractor—the Commission proposes that any personnel conducting assessments not have any business, family, or social relationships with any IP CTS provider or personnel.

Alternatively, should the Commission allow assessments by third-party professionals, as outlined below, in states without equipment distribution programs? The Commission seeks comment on these proposals.

61. *Assessments by Third-Party Professionals.* An alternative to having state programs conduct IP CTS screenings is to require IP CTS providers to obtain from each potential IP CTS user a certification from an independent, third-party hearing health professional affirming the user's eligibility to use IP CTS. The Commission continues to be concerned, however, about the difficulties associated with relying on this gatekeeping function, especially when it is conducted by professionals who may be subject to the enticements of free phones for their clients and other marketing promotions that can interfere with their impartial judgment about a client's eligibility. For this reason, if the Commission adopts this approach, it believes that strict safeguards should be put into place to improve the objectivity and accuracy of these professional assessments, so that only individuals who actually need IP CTS will be permitted to register for this service. For this purpose, the Commission seeks comment on the following measures, and further asks commenters to share any other requirements they believe to be necessary to ensure the independence, expertise, and objectivity of certifying entities.

62. First, to ensure that a certifying third-party professional is qualified to assess a consumer's need for IP CTS, the Commission proposes to require that providers only be permitted to accept user assessment certifications signed by physicians specializing in otolaryngology, audiologists, or other state certified or licensed hearing health professionals qualified to evaluate an individual's hearing loss in accordance with applicable professional standards. Under this proposal, a person whose profession does not ordinarily encompass evaluating hearing loss would not be permitted to provide a third-party certification. The Commission seeks comment on this proposal and any other qualifications needed for such professionals. To ensure compliance with this requirement, and to prevent the possible emergence of ''third-party certification mills,'' the Commission also seeks comment on whether to require IP CTS providers to report annually to the Commission the names and qualifications of professionals that certify multiple users annually, and the number of individuals each professional certifies for IP CTS in each Fund year.

63. Second, to provide assurance that a third-party professional's certification of a consumer's need for IP CTS is not directly or indirectly influenced by IP CTS providers through compensation, opportunities for meeting potential clients, or other provider enticements, the Commission proposes to prohibit an IP CTS provider from accepting a certification from any professional that has a business, family, or social relationship with the IP CTS provider or with any officer, director, partner, employee, agent, subcontractor, sponsoring organization, or affiliated entity (collectively, ''affiliate'') of the IP CTS provider. The Commission proposes that this prohibition specifically include situations where the professional, the professional's organization, or a colleague within that organization has been referred to the consumer, either directly or indirectly, by the IP CTS provider or any affiliate. The Commission also proposes to prohibit IP CTS providers from facilitating or otherwise playing a role in the acquisition of professional certifications by arranging, sponsoring, hosting, conducting, or promoting seminars, conferences, meetings, or other activities in community centers, nursing homes, apartment buildings, or any other location where hearing health professionals offer free hearing screenings. Generally, then, providers would be prohibited from soliciting, facilitating, or collecting user certifications directly from hearing health professionals. Rather, in order to become registered for IP CTS, the Commission believes that consumers, rather than providers on their behalf, should initiate the process of obtaining a third-party certification. The Commission believes that these neutrality requirements would impose minimal costs on IP CTS providers and hearing health professionals. The Commission seeks comment on this view and on the costs and benefits of adopting this proposal (including its impact on consumers), as well as whether there are other types of relationships or interactions between providers and hearing health professionals that should be prohibited to ensure the latter's neutrality.

64. Third, the Commission proposes that before signing a certification as to a consumer's need for IP CTS, the certifying professional be required to: (1) Conduct functional assessments that evaluate the individual's need for IP CTS to achieve functionally equivalent telephone communication (as compared to a general determination of hearing loss) and (2) assess whether an amplified telephone or other services or devices would be sufficient to provide functionally equivalent telephone service for the applicant. The Commission seeks comment on these proposed requirements and their costs and benefits, including whether an assessment that considers multiple options can enable professionals to more objectively determine a consumer's need for IP CTS. The Commission also seeks comment on the extent to which the proposed certification requirement would impose additional costs beyond those already incurred by IP CTS users, providers, hearing health professionals, and others in connection with such assessments. In addition, the Commission seeks comment on how the costs and benefits of user assessments, which are discussed in more detail above, differ based on whether such assessments are conducted by or under the supervision of state entities or by third-party professionals without supervision by state entities. The Commission also seeks comment on whether the Commission or contracting entities should establish an appeals process that would allow potential IP CTS users to contest the results of such assessment and, if so, what form such process should take.

65. Fourth, the Commission proposes to require IP CTS providers to accept only third-party professional certifications that are in writing, submitted under penalty of perjury, and include an attestation from the professional that he or she has conducted an evaluation of the individual in accordance with applicable professional standards and the Commission's rules, and that in the professional's opinion, the applicant has a hearing loss that necessitates use of IP CTS for the individual to achieve effective telephone communication. The Commission further proposes that such attestation state that the professional understands, and has explained to the consumer, that (1) the captions used for IP CTS may be generated by a CA who listens to the other party on the line and provides the captions received by the IP CTS subscriber; and (2) there is a per-minute cost to provide captioning on each IP CTS call, which is funded through a federal program. This requirement will ensure that both the third-party professional and the consumer understand the nature of IP CTS, and help eliminate confusion between the costs associated with television captioning, which is not based on usage, and telephone

captioning, for which there are ongoing, measured costs. The Commission proposes application of these certification requirements to all new users other than those who are able to document that they have obtained IP CTS devices from a state program administering this function.

66. Additionally, to assist with enforcement of these rules, the Commission proposes that each IP CTS provider be required to maintain a copy of each third-party professional certification for a minimum of ten years after termination of service to the consumer, and to make such records available to the TRS Fund administrator or the Commission upon request. The Commission further proposes that failure to provide such records may result in denial of compensation for minutes incurred by that user, and may be grounds for termination of a provider's certification to provide IP CTS. Finally, the Commission proposes that IP CTS providers be prohibited from disclosing users' certification information in a personally identifiable form, except upon request of the Commission or the TRS Fund administrator or as otherwise required by law.

67. The Commission believes that such attestation and record storage requirements would impose minimal costs on IP CTS providers. The Commission seeks comment on this view and on the costs and benefits of adopting these proposals.

68. *Costs and Benefits of Ensuring Independent Assessments of IP CTS User Eligibility.* The Commission seeks comment on the costs and benefits of both approaches. The Commission tentatively concludes that significant additional benefits, in the form of savings to the TRS Fund, will result if evaluations are more objective and better focused on an individual's ability to effectively communicate by telephone than the evaluations that are currently conducted.

69. Usage data provided by Rolka Loube indicates that the average new IP CTS user adds approximately 1,250 minutes in the first year after initiating service. Accordingly, the Commission estimates that the approximately 72,000 new users added in the course of a year will generate approximately 90 million minutes of IP CTS in their first year of service. If, in the future, 10 percent of the IP CTS usage generated by new users results from registration of users who do not need IP CTS, then the Commission estimates that improved screening of new users has the potential to save the Fund, in the first year, the cost of 9 million minutes (10 percent × 90 million), at a rate of $1.58 per minute, or approximately $14.2 million. If 20 percent of such usage is unnecessary, the potential first year's savings would be approximately $28.4 million.

70. The Commission notes that benefits to the Fund of ensuring appropriate usage accrue cumulatively over time. In the second year, a comparable amount of unnecessary usage from new users would be saved, and there would be continued savings from the users screened out in the first year. According to usage data provided by Rolka Loube, in a user's second year, the minutes of use for an average user drop to approximately 66 percent of the user's first-year minutes. Thus, the minutes saved in the second year would be approximately 1.66 times those saved in the first year. If there is a further 10 percent reduction of the IP CTS compensation rate in Fund Year 2020–21, savings of unnecessary minutes and Fund expenditures in the second year would total approximately 14.9 million minutes and approximately $21.1 million if 10 percent of usage is unnecessary, and approximately 29.8 million minutes and approximately $42.2 million if 20 percent of usage is unnecessary. In the third and subsequent years, because of the continued savings from the screenings conducted in the first two years, the Commission believes the amounts saved would continue to multiply. The Commission seeks comment on its tentative conclusion and the assumptions underlying these estimates.

Communications and Messaging on IP CTS

71. In response to concerns raised in the record about what has been perceived as aggressive IP CTS messaging, some of which may be misleading or lacking complete information, the Commission seeks comment on measures to ensure that accurate information about IP CTS is being imparted by providers to consumers, service providers and other members of the public. The importance of ensuring the accuracy of marketing information is heightened by use of IP CTS predominantly by seniors, as they may be particularly vulnerable to schemes that could result in fraud and abuse.

72. *Written Marketing Materials.* The Commission proposes to require that all provider-distributed online, print, and orally delivered materials used to market IP CTS be complete and accurate. The Commission seeks comment on whether such a requirement would ensure that marketing materials make clear that IP CTS may not be necessary for everyone and that to qualify for IP CTS use, consumers with hearing loss must be able to certify that captioning is needed to enable them to understand telephone conversations. The Commission also seeks comment on whether and to what extent this proposed rule change, which may require reprinting of previously produced marketing materials, would impose a significant cost or administrative burden on providers.

73. *Free Phone Offers.* The Commission also continues to be concerned about advertised offers of a free phone for anyone with hearing loss who wants to subscribe to this service, which could both encourage consumers to sign up for IP CTS (just to obtain the phone) even if they do not need it and give such individuals the misimpression that the associated IP CTS services are also free. In addition to enticing consumers, the Commission believes that the incentive of a free phone can sway the opinion of third-party professionals, whose certification may become more of a stamp of approval on a decision made by the consumer in response to provider marketing efforts, rather than an independent evaluation of the consumer's need for IP CTS. Would a requirement to eliminate from promotional materials, including print materials and websites, promises of a free phone for *anyone with hearing loss,* without specifying that this service (and the associated phones) are only intended for individuals who have a hearing loss that makes it difficult to use the phone, remove such improper incentives and reduce the number of consumers who sign up for IP CTS without a specific need for this service? The Commission seeks comment on the merits of taking this measure and how the First Amendment might apply in this context.

74. *Equipment Installer Notifications.* To ensure that consumers are given full information about the nature and costs of IP CTS prior to allowing providers to install these devices in their homes, the Commission proposes that whenever there is a home installation of an IP CTS device by a provider's employee, agent, or contractor, such installer must explain to the consumer, prior to conducting such installation: (1) The manner in which IP CTS works, (2) the per-minute cost of providing captioning on each call (*i.e.,* the applicable rate of provider compensation), and (3) that the cost of captioning is funded through a federal program. The Commission seeks comment on this proposal.

75. *Incentives to Caretakers and Service Providers for Seniors.* The

Commission proposes to amend its rules to expressly prohibit providers from offering or providing any form of direct or indirect incentives, financial or otherwise, to any person or entity for the purpose of encouraging referrals of potential users, registrations, or use of IP CTS. The Commission seeks comment on this proposal.

76. The Commission tentatively concludes that compliance with these requirements regarding marketing materials, notifications by equipment installers, and prohibition of certain incentives would impose minimal costs on IP CTS providers. The Commission seeks comment on this tentative conclusion and on the costs and benefits of adopting this proposal.

77. Finally, the Commission seeks comment on whether there are any other components of an IP CTS provider's public relations, marketing, media planning, product pricing and distribution, or sales strategy that could lead to waste, fraud, and abuse in the IP CTS program, and what rules the Commission should adopt to halt such practices.

IP CTS Registration Renewal and Phone Reclamation

78. The Commission seeks comment on what rules are needed to prevent the unauthorized use of a registered user's IP CTS device after the authorized user ceases to use the service. In light of the reportedly high level of attrition among IP CTS users, the Commission believes there is a risk that providers may not be notified when the registered user of an IP CTS device discontinues use, and that such users' IP CTS devices may end up in the possession of others who are not properly registered to use IP CTS. To minimize the risk of inappropriate IP CTS use, the Commission proposes to require that IP CTS providers biennially obtain from their users a self-certification of their continuing need to use IP CTS to achieve functionally equivalent telephone communication, and retain copies of each self-certification, as well as other registration information, for a period of ten years. Further, the Commission proposes to prohibit such providers from receiving compensation for IP CTS provided to any such individual who fails to re-certify within the specified interval or for calls associated with any device for which such certification was required. At present, the Commission does not see the need to apply these new requirements to web and wireless IP CTS because the use of log-in credentials will reduce the likelihood of unauthorized use of such services upon their discontinuation by consumers who have been registered to use them. The Commission seeks comment on this belief.

79. The Commission also seeks comment on whether to require IP CTS providers to notify each individual who receives an IP CTS device, at the time of such receipt and initial registration, that the user has an obligation to ensure that the provider is notified if such user discontinues use of the captioning service. If this proposal is adopted, the Commission further proposes that recipients of IP CTS devices be permitted to fulfill such obligation either on their own or through a designated representative, at which time the provider would be required to terminate the provision of IP CTS via that device. The Commission further seeks comment on whether to adopt a rule requiring the provider to either disable the IP CTS capability of an end-user device or ensure that the consumer (or his or her designee) returns the device to the provider, after notification that the authorized user is no longer using the device for IP CTS. Finally, the Commission seeks comment on other steps that IP CTS providers should take to ensure that the person who initially registers for a captioning service remains the exclusive user of the captioning service provided on that user's device.

80. The Commission believes that compliance with these registration renewal and phone reclamation requirements would impose minimal costs on providers and seeks comment on this view and on the costs and benefits of adopting these proposals.

Requiring an Easy Way To Turn Captions On or Off

81. The Commission proposes to require providers to ensure that their IP CTS equipment provides an easy way to turn captions *on or off,* either before placing a call or while a call is in progress, and to prohibit provider practices designed to induce an individual to turn captions on, or leave them on, when that person otherwise would not do so.

82. Accordingly, the Commission proposes to require both (1) an easily operable button, icon, or other comparable feature that requires a single step for consumers to turn captioning on or off, and (2) a prohibition against the installation of features in provider-distributed services or devices that have the foreseeable effect of encouraging IP CTS users to turn on captions even when they are not needed. The Commission believes that compliance with these requirements would impose minimal costs on IP CTS providers and seeks comment on this view and on the costs and benefits of adopting these proposals as a means of reducing waste and improving the efficiency of IP CTS. The Commission also seeks comment on the amount of time that would be needed to effect their implementation.

Additional Measures

83. The Commission also seeks comment on additional steps it could take to help prevent waste, fraud, and abuse in the provision of IP CTS. What other measures could the Commission implement to better ensure that limited program dollars are used to support the use of IP CTS by eligible individuals with hearing loss? For instance, do IP CTS providers currently have processes in place to enable or require call takers to identify individual calls or patterns of calls that may suggest noncompliance with program rules? Should the FCC impose requirements on providers that they enable or require CAs to flag individual calls that may suggest that IP CTS functionality is being used improperly? For example, some consumers in a household may use captioning features who do not actually need them. Should any steps the Commission takes focus on individual calls or identified patterns? Should IP CTS providers have an obligation to report any such flags to the TRS Fund administrator or the FCC? Should the Commission take steps to ensure that any particular calls where IP CTS is improperly used are not compensated out of program dollars? Are there auditing procedures that the FCC, the TRS Fund administrator, or IP CTS providers should take to identify any such calls and to ensure providers are offering IP CTS only to eligible consumers?

84. The Commission also seeks comment on whether it should consider additional measures to ensure call quality for 911 calls made using IP CTS. Given the important and often exigent circumstances associated with 911 calls, the Commission previously adopted rules requiring IP CTS providers to transfer emergency calls to 911, to prioritize emergency calls, and to communicate essential information to first responders answering 911 calls. Are these requirements sufficient to ensure proper emergency call handling by IP CTS providers? Are IP CTS providers taking sufficient steps to detect and remedy 911 call failures? Have callers encountered technical difficulties or call quality issues when making 911 calls? To what extent should the Commission adopt standards for the accuracy and synchronicity of captions on 911 calls handled by IP CTS

providers, to enable the effective and timely exchange of information in an emergency? Are there other minimum criteria that should be established for such calls? Are there unique challenges with respect to relaying calls to 911 associated with any of the methods used to generate IP CTS captions (*i.e.,* fully automated ASR, CA-assisted ASR or stenographic supported captions)? Finally, are additional auditing requirements, beyond those already governing TRS providers, necessary to ensure compliance with the Commission's 911 IP CTS call handling requirements? For example, should the Commission conduct regular testing to ensure such compliance? The Commission asks commenters to address the costs and benefits associated with any proposed measures.

Technological Advances

85. The Commission also seeks comment on the extent to which alternative communication services and applications, which are not funded through the TRS program, can complement or reduce reliance on IP CTS. For example, to what extent can amplified telephones, high definition VoIP services (HD voice) over wired and wireless networks, video over broadband and cellular networks, noise-canceling techniques, audio personalization, and various forms of text-based communications—for example, real-time text (RTT), email, short messaging services, instant messaging, and online chat sessions—meet the communications needs of people with hearing and speech disabilities? To the extent that these mainstream technologies enable functionally equivalent access to voice telephone services for some individuals, the Commission believes they may reduce reliance on IP CTS and thereby help preserve the TRS Fund for others for whom IP CTS is essential for telephone communication. The Commission seeks comment on this belief, and whether there are registered IP CTS users who only use their IP CTS devices in certain situations, but rely on more direct alternatives, such as phone amplification, in other situations. The Commission further seek comment on how it can collect data on the potential markets for these off-the-shelf technologies, as well as their usage by individuals who are current or potential users of IP CTS.

Notice of Inquiry

Performance Goals

86. The Commission seeks comment on appropriate performance goals for the IP CTS program. The Commission's objective here is to state these goals in terms that lend themselves to evaluating progress toward achieving the Congressional objectives set forth in section 225 of the Act.

87. The Commission believes that the primary goals for the IP CTS program should be: (1) To make communications services available to individuals with communications disabilities that are functionally equivalent to communications services used by individuals without such disabilities; (2) to keep up with technological changes and advances in the telecommunications industry; and (3) consistent with the concepts of good government and proper stewardship of the Fund, to improve the efficiency of IP CTS, and reduce the incidence of waste, fraud, and abuse. The Commission seeks comment on whether these or other goals are appropriate for assessing the IP CTS program and IP CTS provider performance.

88. *Goal #1: Functional Equivalence.* Given the requirement in section 225 of the Act for the Commission to ensure, to the extent possible, the availability of TRS for people with hearing or speech disabilities that is functionally equivalent to voice telephone services used by people without such disabilities, the Commission seeks comment on whether it should set as its first goal that communications services used by these populations be comparable to communications services used by the general public, including communications that take place over the PSTN, cellular networks, and VoIP transmissions. In April 2011, consumer groups suggested that functional equivalence be defined as enabling ''[p]ersons receiving or making relay calls . . . to participate equally in the entire conversation with the other party or parties and . . . experience the same activity, emotional context, purpose, operation, work, service, or role (function) within the call as if the call is between individuals who are not using relay services on any end of the call.'' The Commission seeks comment on the extent to which this is an appropriate definition of functional equivalence for the purpose of defining this performance goal.

89. *Goal #2: Technological Advances.* Section 225 of the Act directs the Commission to adopt regulations that encourage the use of existing technology and . . . do not discourage or impair the development of improved technology. The Commission therefore asks whether the second goal of the IP CTS program should be to ensure that this program utilizes technological changes and advances in the telecommunications industry to the greatest extent possible, as needed to achieve functionally equivalent communication for this population. This goal would not be limited to current technological capabilities, but rather would seek to ensure that people with communication disabilities are able to take full advantage of innovative communication technologies, such as ASR, as these continue to be developed. The Commission seeks comment on this goal, and more specifically, on how the use of mainstream and off-the-shelf technologies can provide functional alternatives to, or supplement, IP CTS in meeting the needs of individuals who are deaf, hard of hearing, deaf-blind, or have speech disabilities. For example, to what extent can individuals who use IP CTS also be able to communicate directly with others through the use of amplified telephones, high definition VoIP services over wired and wireless networks, video over broadband and cellular networks, and text-based communications (*i.e.,* electronic messaging services, such as email, short messaging service, instant messaging, and online chat sessions)? The Commission asks commenters to address the types of circumstances when these or other emerging technologies can be used to provide functionally equivalent telephone communication for people with communications disabilities. What steps, if any, should the Commission be taking to foster such direct communication solutions?

90. *Goal #3: Provision of Service in the Most Efficient Manner.* Section 225 of the Act directs that TRS be made available ''in the most efficient manner.'' To this end, the Commission asks whether the third program goal should be to improve the efficiency of the IP CTS program and to reduce this program's incidence of waste, fraud, and abuse. The Commission also seeks comment on whether efficiency can be measured solely in terms of the cost incurred to achieve a certain level of functional equivalence, or whether there are additional factors, such as timeliness and effectiveness, that should go into this determination. The Commission further seeks comment on how this goal should be balanced against the performance goal of ensuring the provision of a functionally equivalent conversational experience through IP CTS.

Performance Measures

91. To ensure that its performance goals are being met, the Commission must define measurements that can

provide valuable empirical evidence to objectively assess these goals. In addition to enabling the Commission to track the progress and success of the IP CTS program, these measurements will provide valuable empirical evidence for Commission policy makers to craft rules for effective implementation and oversight of the IP CTS program, as well as to ensure that consumers are provided with the information they need to make informed choices in their selection of provider services.

92. Some of these metrics may be observed automatically, *e.g.,* by call processing logs or other measurement tools, while others may require evaluation by IP CTS users or human subject matter experts. The Commission seeks comment on whether the derivation of data used to measure IP CTS service quality should be overseen by the TRS Fund administrator or otherwise developed through contractual or similar arrangements with independent third parties selected by the Commission. The Commission believes that calculations resulting from IP CTS performance measures will have greater efficacy if they are conducted independently (*i.e.,* not by the regulated entities).

93. The Commission also seeks comment on whether it should publish the metrics achieved for each provider, as it appears likely that making these results available to the public in a standard format will aid users in their selection of IP CTS providers. If shared publicly, the Commission seeks comment on the merits of developing a system by which IP CTS users can rate the quality and performance of IP CTS calls (based on the metrics discussed below) to increase competition. Finally, the Commission seeks comment on how such information should be presented to users, and whether there are concerns with such information being utilized in outreach or marketing materials.

94. *Functional Equivalence.* The Commission seeks comment on use of the following metrics to measure IP CTS service quality: (1) Transcription accuracy; (2) transcription synchronicity; (3) transcription speed; (4) speed of answer; (5) dropped or disconnected calls; (6) service outages; and (7) usage data. How frequently should such testing or data gathering be performed and how should the information from such testing be reported?

95. *Transcription Accuracy.* The Commission believes that standard measurements of captioning accuracy (using either CA-assisted and ASR versions) are needed to effectively measure functional equivalence on a regular basis, and seeks comment on this belief, as well as on the appropriate components that should go into such assessments. The Commission notes that it has defined accuracy in the context of closed captioning for video programming as including (in relevant part) considerations for the order of the words, proper spelling and punctuation, and correct tense. The Commission seeks comment on whether these guidelines are appropriate for IP CTS, and if so, how they should be measured. Should the Commission adjust accuracy measurements or standards to take account of the type of call measured, *e.g.,* calls to 911 or calls for services that use a specialized vocabulary, such as calls pertaining to medical, legal, or technical computer support?

96. What methods do providers currently use to evaluate the accuracy of IP CTS transcription? Are there metrics used to assess the accuracy of computer-assisted real-time translation (CART) or court reporting that could be effectively applied to IP CTS? The Disability Advisory Committee (DAC) suggests evaluating accuracy by calculating major errors (*i.e.,* errors that change the meaning of a transcription) and minor errors (*i.e.,* errors that while technically incorrect, do not substantively change the meaning of the transcription). The MITRE Corporation (MITRE), a contractor for the Commission, suggests differentiating between transcription completeness and accuracy. It defines completeness as a measure of all the words transcribed, whether correctly or incorrectly as a percentage of the total words spoken, and accuracy as the percentage of words from the conversation that are correctly transcribed on the screen. Another way of assessing accuracy may be to examine the semantic error rate, which, according to one source, considers ''the fraction of utterances in which we misinterpret the meaning.'' Additionally, should transcription readability, which can be affected by correct punctuation and capitalization, be a component of accuracy? The Commission seeks comment on whether and how these various factors should be used to measure IP CTS accuracy, whether CA-assisted or entirely automated through ASR, and any other metrics that the Commission should use for this purpose.

97. Finally, the Commission seeks comment on the tools that should be used to evaluate transcription accuracy given that its rules prohibit TRS providers from retaining records of the content of any conversation beyond the duration of a call. Are there real-time or other methods that can be used to measure the accuracy of calls consistent with this prohibition? For example, should the Commission use anonymous callers to make and record call interactions for later analysis by experts? Alternatively, should the Commission have independent third parties test transcription accuracy using test call scripts?

98. *Transcription Synchronicity.* Should the Commission measure the synchronicity of communications during an IP CTS call as a measure of functional equivalency. The Commission seeks comment on use of synchronicity as an appropriate metric, and how best to assess it, reminding commenters of its past suggestion to calculate the lag time between the hearing party's response and the time when the captions appear. MITRE proposes a slight variation, to define transcription delay as the time elapsed from when an IP CTS user hears the other party's voice on a caption phone to when captions of that speech are displayed on the phone's screen. The Commission seeks comment on each of these approaches.

99. The Commission also seeks comment on methods that may be available to evaluate the synchronicity of captions. Should providers be required to collect and report the amount of transcription delay on each IP CTS call? Alternatively, should the Commission have independent third parties test for this delay using test scripts? How should the information from the testing be reported and how frequently should such testing and data gathering be performed? To the extent that a delay occurs, the Commission seeks comment on how a performance measure should factor in its causes, be they technical, network- or equipment-related, or dependent on the speech of the party whose conversation is being captioned.

100. *Transcription Speed.* The Commission seeks comment on the need to measure the speed of IP CTS transcription. The DAC proposes defining transcription speed by calculating the number of words transcribed divided by the time needed to transcribe those words (measured in seconds) and multiplied by 60. Suggesting that speed cannot be accurately measured for live calls because the speaking speed of the non-captioned telephone user is unknown and there may be ''silence gaps'' during conversations, the DAC instead proposes to rely on test scripts to measure compliance with speed requirements. The Commission seeks comment on the feasibility of measuring the speed of live calls, as well as the use

of test scripts versus other methods to assess this metric. Are there environmental or other factors that may affect whether a speed test using a test script accurately reflects transcription speed on a live call? The Commission also seeks comment on whether the TRS Fund administrator or an independent third-party contracted by the Commission should conduct speed tests and the frequency with which these tests should be performed.

101. *Speed of Answer.* Commission rules require that 85 percent of all IP CTS calls be answered within ten seconds. Providers must include data that enables tracking of their speed of answer in their CDRs and related filings submitted to the TRS Fund administrator. The Commission currently measure speed of answer for IP CTS calls by the time it takes for CAs to establish the connection between an IP CTS user's request for captioning and the start of captioning services. The collection of this data enables the Commission to monitor the extent to which provider connection time for IP CTS users is comparable to the connection time for voice telephone users. The Commission seeks comment on inclusion of this metric to assess functional equivalency, and how it can best be measured. Should the Commission rely on IP CTS providers to measure and report their connection delay, or use independent third parties for this purpose? How frequently should the Commission test and require the reporting of connection delays?

102. *Dropped or Disconnected Calls.* The Commission seeks comment on whether to track and measure the percentage and frequency of ''dropped'' or disconnected calls, and to compare these results with the various telephone communication technologies used by the hearing community. The Commission believes that to achieve functional equivalency, the number of dropped or disconnected IP CTS calls should be comparable to the number of dropped or disconnected voice calls placed by the hearing public. It seeks comment on use of this metric for this purpose, and how such data should be compared with dropped or disconnected telephone calls made over mainstream voice networks. Should such data be collected through user feedback, test calls, by analyzing provider logs or by a combination of these measures? The Commission further seeks comment on how such data should be presented to IP CTS users, if made publicly available.

103. *Service Outages.* Commission rules require all internet-based TRS providers to notify the Commission in the event of an unplanned service outage of any duration or a voluntary service interruption of less than 30 minutes, and to seek advance approval for voluntary interruptions of longer duration. In addition, redundancy of facilities is a requirement for all forms of TRS. In general, to achieve functional equivalence, the Commission believes that the frequency and extent of IP CTS service outages and interruptions should not exceed that of outages and interruptions occurring on transmission services used by hearing people. The Commission seeks comment on this belief and use of this metric to measure the goal of functional equivalency.

104. *Usage Data.* One measure of determining the extent to which IP CTS is successfully providing functionally equivalent communication is the extent to which this service is being used by people with hearing disabilities who are in need of this service. While the Commission generally gathers data on minutes of use, at present, the Commission lacks conclusive information about the number of eligible individuals using IP CTS in the United States. However, this data could be obtained through collection in the TRS-User Registration Database (TRS–URD). After measures are implemented to prevent individuals from using this service if they do not need it, when measured against demographic statistics regarding various kinds and levels of hearing loss, this metric may help to assess the program's success and determine whether functionally equivalent communication via IP CTS has been made available ''to the extent possible,'' as mandated by section 225(b) of the Act. The Commission also seeks comment from IP CTS providers on what kind of information they collect about the demographics of their users, and invite them to submit summaries of such information.

105. The Commission seeks comment on whether there are other metrics that the Commission should consider for measuring the extent to which IP CTS call quality achieves functional equivalency for its users.

106. *Technological Advances.* The Commission seeks comment on ways to measure the extent to which evolving communications technologies can provide functionally equivalent communications services for people with disabilities who cannot use traditional voice telephone options. For example, the Commission seeks comment on whether and how it should assess the extent to which these alternative technologies can improve the accuracy, synchronicity, speed of answer, frequency of dropped or disconnected calls, and frequency of service outages of telephone calls placed by such individuals. The Commission asks commenters who have made such measurements to submit their data.

107. The Commission believes that, consistent with section 225(d)(2) of the Act, it should encourage the use of off-the-shelf or assistive technologies to achieve direct calling arrangements, so long as the service quality afforded by these technologies represents at least the same level as, or is an improvement over, the level of quality realized by using IP CTS, and seeks comment on this belief. In this regard, the Commission notes that whether an individual's use of any off-the-shelf or assistive technology creates a functionally equivalent direct calling experience will always be unique to the individual. Is there some minimum level of service quality below which the use of off-the-shelf or assistive technologies to achieve direct calling arrangements should not be encouraged?

108. The Commission further seeks comment on how it can collect data on the potential markets for these off-the-shelf technologies, as well as their usage by individuals who are current or potential users of IP CTS. The Commission believes it can better achieve its goal of ensuring that individuals with disabilities make use of technological advances with a more complete understanding of who uses IP CTS as compared to alternative means of communication. For example, are there registered IP CTS users who only use their IP CTS devices in certain situations, but rely on more direct alternatives, such as phone amplification, in other situations? What measures should be used to evaluate the extent to which alternatives to IP CTS are being used by people with hearing or speech disabilities? For example, should the Commission contract for a survey of deaf and hard of hearing individuals to collect such information?

109. In addition, the Commission seeks comment and data on the extent to which any existing TRS regulations ''discourage or impair the development of improved technology.'' The Commission asks commenters to specifically identify such regulations and whether they should be amended.

110. *Program Efficiency.* Data on potential and existing IP CTS users can help ensure that waste, fraud, and abuse of the TRS program are kept to a minimum. Accurate information about the number of users and the frequency and duration of their calls will assist the Commission in protecting program integrity and ensuring that this program

is being used properly in accordance with Congress's goal of ensuring effective telecommunications access to people with communication disabilities. The Commission seeks comment on metrics that would be appropriate to ensure the efficiency of the IP CTS program.

111. *Other Measures.* The Commission seeks comment on other metrics it could employ to measure the performance goals for IP CTS. Commenters should address, with specificity, what should be measured, how it should be measured, and how often it should be measured, along with any estimated costs and benefits of such measurements.

Initial Regulatory Flexibility Act Analysis

112. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Further Notice. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadline for comments on the Further Notice specified in the **DATES** section. The Commission will send a copy of the document 18–79 to the Chief Counsel for Advocacy of the Small Business Administration.

Need for, and Objectives of, the Proposed Rules

113. In the Further Notice, the Commission proposes to adopt a multi-year cost-based compensation rate methodology for IP CTS.

114. The Commission proposes several different methods to restructure the funding and administration of IP CTS: (1) Expanding the Interstate Telecommunications Relay Services (TRS) Fund base to include intrastate revenues; (2) permitting or requiring states to assume responsibility for the funding and administration of intrastate IP CTS and how to address the funding and administration of intrastate IP CTS for states that choose not to assume these duties; and (3) having assessments of user need for IP CTS performed under the purview of state TRS programs so that the assessments can be neutral, objective and independent from provider influence, or allowing or requiring IP CTS providers to obtain from new and existing IP CTS users a certification from an independent, third-party professional affirming the user's eligibility to use IP CTS.

115. The Commission proposes to include caregivers and other professionals within the scope of the prohibition of provider incentives to use IP CTS, and to include organizations along with individuals in the prohibitions of provider incentives.

116. The Commission proposes measures to ensure that accurate information about IP CTS is being imparted by providers to consumers, service providers and other members of the public.

117. The Commission proposes to require IP CTS providers to biennially obtain from each user a self-certification of the user's continuing need to use IP CTS to achieve functionally equivalent telephone communications and to prohibit such providers from receiving compensation for IP CTS provided to any such individual who fails to recertify within the specified interval or for calls associated with any device for which such certification was required. The Commission also seeks comment on whether to require providers to reclaim or disable any IP CTS devices that are no longer associated with registered users.

118. Finally, the Commission proposes to require providers to ensure that their IP CTS equipment provides an easy way to turn captions *on or off,* either before placing a call or while a call is in progress.

Legal Basis

119. The authority for this proposed rulemaking is contained in sections 1 and 225 of the Act, as amended, 47 U.S.C. 151, 225.

Small Entities Impacted

120. The rules proposed in document FCC 18–79 will affect obligations of: Wired telecommunications carriers; telecommunications resellers; wireless telecommunications carriers (except satellite); and all other telecommunications.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

121. The proposed expansion of the TRS Fund base may require common carriers that provide only intrastate telecommunications service that are not currently registered with the TRS Fund administrator to register with the administrator and submit contribution payments to the TRS Fund.

122. The proposal to require or allow states to administer the IP CTS program or oversee IP CTS user eligibility may require states to provide additional information in their applications for certification to the Commission to indicate the role the state will undertake and include information concerning the state's ability to take on this additional role.

123. The proposed third-party certification of IP CTS user eligibility would require IP CTS providers to obtain a copy of such certification from the user and retain the copy while the user is receiving IP CTS and for a minimum of ten years after the user has discontinued use of IP CTS.

124. The proposed marketing rules may require IP CTS providers to include specific information in IP CTS informational materials and on their websites. The proposal regarding biennial self-certification of IP CTS users would require providers to again collect and retain these self-certifications from the users. The proposal to require IP CTS providers to reclaim or disable IP CTS devices no longer associated with registered users may require IP CTS providers to notify users of the need to return the devices when no longer using them and may require the providers to keep records associated with the device reclamation or disabling process.

125. The proposal to require providers to ensure that their IP CTS equipment provides an easy way to turn captions *on or off,* either before placing a call or while a call is in progress would not create direct reporting, recordkeeping or other compliance requirements.

Minimize Significant Impact on Small Entities, and Significant Alternatives Considered

126. The Commission seeks comment from all interested parties on alternatives to its proposals. Small entities are encouraged to bring to the Commission's attention any specific concerns they may have with the proposals outlined. The Commission expects to consider the economic impact on small entities, as identified in comments filed in response to the document FCC 18–79, in reaching its final conclusions and taking action in this proceeding.

Federal Rules Which Duplicate, Overlap, or Conflict With, the Commission's Proposals

127. None.

List of Subjects in 47 CFR Part 64

Individuals with disabilities, Telecommunications, Telephones.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

For the reasons discussed in the preamble, the Federal Communications

Commission proposes to amend 47 CFR part 64 as follows:

PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

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

Authority: 47 U.S.C. 154, 201, 202, 218, 222, 225, 226, 227, 228, 251(e), 254(k), 403(b)(2)(B), (c), 616, 620, 1401–1473, unless otherwise noted.

■ 2. Amend § 64.604 by:
■ a. Revising paragraphs (c)(8)(ii), (c)(9)(x), (c)(10)(i), and (c)(11)(v);
■ b. Redesignating paragraph (c)(8)(v) as paragraph (c)(8)(vi) and paragraph (c)(10)(ii) as paragraph (c)(10)(iii); and
■ c. Adding paragraphs (c)(8)(v), (c)(9)(iii)(E), (c)(10)(ii), and (c)(11)(vi).

The additions and revisions read as follows:

§ 64.604 Mandatory Minimum Standards.

* * * * *

(c) * * *

(8) * * *

(ii) An IP CTS provider shall not offer or provide to any other person or entity any direct or indirect incentives, financial or otherwise, to encourage referrals of potential users, registrations, or use of IP CTS. Where an IP CTS provider offers or provides IP CTS equipment, directly or indirectly, to a hearing health professional, or any other person or entity, and such person or entity makes or has the opportunity to make a profit on the sale of the equipment to consumers, such IP CTS provider shall be deemed to be offering or providing a form of incentive to encourage referrals of potential users, registrations or use of IP CTS.

* * * * *

(v) IP CTS providers, and their agents and contractors, may not discuss the availability of a free IP CTS device in marketing presentations and promotional materials unless such presentations and materials also clearly and prominently state that IP CTS and IP CTS devices are only intended for individuals who have a hearing loss that makes it difficult to use the phone.

(vi) Any IP CTS provider that does not comply with this paragraph (c)(8) shall be ineligible for compensation for such IP CTS from the TRS Fund.

(9) * * *

(iii) * * *

(E) Within two years after obtaining a consumer's self-certification, or within two years of the effective date of this paragraph (c)(9)(iii)(E), whichever is later, and within every two years thereafter, an IP CTS provider shall obtain a new self-certification from the consumer in accordance with the requirements of this paragraph (c)(9)(iii). Minutes of use of any consumer who has not provided a new self-certification by the end of the two-year period shall be deemed non-compensable, the provider shall be required to re-register the consumer for IP CTS service in accordance with the requirements of this paragraph (c)(9), and the IP CTS provider shall not be compensated for minutes of use associated with that consumer during the period of such lapsed registration.

* * * * *

(x) Each IP CTS provider shall maintain records of any registration and certification information for a period of at least ten years after the consumer ceases to obtain service from the provider and shall maintain the confidentiality of such registration and certification information, and may not disclose such registration and certification information or the content of such registration and certification information except as required by law or regulation.

* * * * *

(10) *IP CTS Settings.* Each IP CTS provider shall ensure that, for each IP CTS device it distributes, directly or indirectly:

(i) The device includes a button, key, icon, or other comparable feature that is easily operable and requires only one step for the consumer to turn captioning on or off;

(ii) The device shall not include any features that have the foreseeable effect of encouraging IP CTS users to turn on captions when they are not needed for effective communication; and

(iii) Any volume control or other amplification feature can be adjusted separately and independently of the caption feature.

* * * * *

(11) * * *

(v) IP CTS providers shall ensure that their informational materials and websites used to market, advertise, educate, or otherwise inform consumers and professionals about IP CTS includes the following language in a prominent location in a clearly legible font: ''FEDERAL LAW PROHIBITS ANYONE BUT REGISTERED USERS WITH HEARING LOSS FROM USING INTERNET PROTOCOL (IP) CAPTIONED TELEPHONES WITH THE CAPTIONS TURNED ON. IP Captioned Telephone Service may use a live operator. The operator generates captions of what the other party to the call says. These captions are then sent to your phone. There is a cost for each minute of captions generated, paid from a federally administered fund. IP CAPTIONED TELEPHONE SERVICE IS NOT FOR EVERYONE WITH HEARING LOSS. In order to use captioning, a consumer must be able to certify that captioning is needed to hear telephone conversations. Other technologies, such as amplified telephones, may better serve a consumer's need to hear telephone conversations.'' For IP CTS provider websites, this language shall be included on the website's home page, each page that provides consumer information about IP CTS, and each page that provides information on how to order IP CTS or IP CTS equipment. IP CTS providers that do not make any use of live CAs to generate captions may shorten the notice to leave out the second, third, and fourth sentences.

(vi) If an IP CTS provider knows or should have known that a user is deceased or no longer eligible to use IP CTS, including, but not limited to, a user failing to provide a new self-certification in accordance with the requirements of paragraph (9)(c)(iii)(E), the IP CTS provider shall either deactivate the captioning feature on the IP CTS equipment distributed to that consumer or reclaim the equipment, and minutes of use associated with the equipment shall not be compensable.

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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 64

[WC Docket No. 13–39; Report No. 3098]

Petitions for Reconsideration of Action in Rulemaking Proceeding

AGENCY: Federal Communications Commission.

ACTION: Petitions for Reconsideration.

SUMMARY: Petitions for Reconsideration (Petitions) have been filed in the Commission's Rulemaking proceeding by Michael R. Romano, on behalf of NTCA—The Rural Broadband Association (''NTCA''), and Kevin G. Rupy, on behalf of USTelecom—The Broadband Association.

DATES: Oppositions to the Petition must be filed on or before August 2, 2018. Replies to an opposition must be filed on or before August 13, 2018.

ADDRESSES: Federal Communications Commission, 445 12th Street SW, Washington, DC 20554.

FOR FURTHER INFORMATION CONTACT: Zach Ross, Wireline Competition Bureau, at: (202) 418–1580; email: *Zachary.Ross@fcc.gov.*