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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 14 and 64

[CG Docket Nos. 23-161, 10-213, 03-123; FCC 23-50; FR ID 157623]

Access to Video Conferencing

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Federal Communications Commission (FCC or Commission) proposes to amend its rules to ensure that interoperable video conferencing services (IVCS) are accessible to people with disabilities and to facilitate the integration and appropriate use of telecommunications relay services (TRS) with video conferencing. These amendments are proposed to meet the need for people with disabilities to participate fully in video conferences, a technology that appears to have permanently altered the norms of modern communication in the workplace, healthcare, education, social interaction, and civic life.

DATES: Comments are due **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Reply comments are due **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by CG Docket Nos. 23-161, 10-213, and 03-123 by either of the following methods:

- *Federal Communications Commission's website: https://www.fcc.gov/ecfs/filings*. Follow the instructions for submitting comments.
- *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* document FCC 23-50 at https://docs.fcc.gov/public/attachments/FCC-23-50A1.pdf.

FOR FURTHER INFORMATION CONTACT: William Wallace, Disability Rights Office, Consumer and Governmental Affairs Bureau, at 202-418-2716, or William.Wallace@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Notice of Proposed Rulemaking, document FCC 23-50, adopted on June 8, 2023, released on June 12, 2023, in CG Docket Nos. 23-161, 10-213, and 03-123. Also, this document has a companion document published at 88 FR 50053, August 1, 2023. The full text of document FCC 23-50 is available for public inspection and copying via the Commission's Electronic Comment Filing System (ECFS).

To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530.

Ex Parte Rules. 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 § 1.1206(b) of the Commission's rules. In proceedings governed by § 1.49(f) of the Commission's rules 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.

Synopsis

Background

Since the March 2020 outbreak of the COVID-19 pandemic in the United States, video conferencing has grown from a niche product to a central pillar of our communications infrastructure. In early 2020, after governments, businesses, and schools adopted social distancing requirements, organizations, families, and individuals turned to video conferencing as a work-around. Use of video conferencing increased exponentially, becoming a significant part of the technology solution replacing in-person meetings, conference calls, and traditional classroom instruction.

The new social interaction paradigm occasioned by the pandemic appears to have permanently altered the norms of modern communication in the workplace, healthcare, education, social interaction, civic life, and more. The pandemic amplified and accelerated the reality that much of Americans' lives take place online using an increasing variety of connected devices. For millions of Americans, video conferencing has become a mainstay of their business and personal lives.

With the growing use of video conferencing has come heightened concern about accessibility. Small screens make it difficult for users who are deaf or hard of hearing to identify visual clues, such as when a colleague is about to speak. When automatic captions are provided on video conference platforms, the quality and timeliness of the transcription varies widely. In a 2021 survey of 330 people with vision disabilities, approximately 57% of respondents found telehealth to be inaccessible in some way. Further, users who are blind or have limited vision describe struggles to find and toggle volume controls.

In recent years, various accessibility features have been introduced by a number of video conferencing providers. Depending on the platform, these features may include screen reader and braille display support, a choice of third-party live captioning or synchronous automatic captioning, multi-pinning features, and spotlighting a speaker so that all participants know who is speaking. Some services also offer keyboard accessibility features, high-contrast visual elements, customizable notifications, verbosity controls, and other accessibility innovations.

However, the accessibility of video conferencing services remains limited for many users. In its February 2022 recommendations to the Commission, the Disability Advisory Committee highlighted the inconsistent performance of video conferencing providers in making their platforms accessible to people who are deaf, hard of hearing, or deafblind. Commenters also point out that users with disabilities often are not in a position to dictate what video conferencing service the host of the conference should use. For example, a patient who is deaf may not be able to obtain healthcare because the doctor's telehealth conferencing platform does not enable an effective connection to a sign language interpreter or VRS. A student who is blind may be unable to fully participate in a remote class discussion if information provided through a share-screen feature is not accessible to screen readers. In these and other scenarios, a person with a disability often has no opportunity to request a different, accessible video conferencing system.

Under the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA), Pub. L. 111-260, providers of advanced communications services (ACS) and manufacturers of equipment used for ACS must make such services and equipment accessible to and usable by people with disabilities, unless these requirements are not achievable. 47 U.S.C. 617(a)(1), (b)(1). Service providers and manufacturers may comply with these provisions either by building accessibility features into their services and equipment or by using third-party applications, peripheral devices, software, hardware, or customer premises equipment (CPE) that are available to individuals with disabilities at nominal cost. 47 U.S.C. 617(a)(2), (b)(2). If accessibility is not achievable through either of these means, then manufacturers and service providers must make their products and services compatible with existing

peripheral devices or specialized CPE commonly used by people with disabilities to achieve access, subject to the achievability standard. 47 U.S.C. 617(c). The Communications Act of 1934, as amended (the Act), defines *advanced communications services* as: (1) interconnected Voice over Internet Protocol (VoIP) service; (2) non-interconnected VoIP service; (3) electronic messaging service; (4) interoperable video conferencing service; and (5) any audio or video communications service used by inmates for the purpose of communicating with individuals outside the correctional institution where the inmate is held, regardless of technology used. 47 U.S.C. 153(1). *Interoperable video conferencing service*, in turn, is defined as a service that provides real-time video communications, including audio, to enable users to share information of the user's choosing. 47 U.S.C. 153(27).

In the Report and Order in document FCC 23-50, the Commission revisits its previously stated views regarding the interpretation of the statutory term *interoperable video conferencing service*. The Commission concludes that part 14 of its rules applies to all services and equipment that meet the statutory definition of *interoperable video conferencing service*, *i.e.*, all services and equipment that provide real-time video communications, including audio, to enable users to share information of the user's choosing.

TRS and Video Conferencing. Enacted in 1990, Title IV of the Americans With Disabilities Act, codified as section 225 of the Act, directs the Commission to ensure that interstate and intrastate telecommunications relay services are available, to the extent possible and in the most efficient manner, to eligible users in the United States. 47 U.S.C. 225(b)(1). *TRS* are defined as telephone transmission services enabling such persons to communicate by wire or radio in a manner that is functionally equivalent to the ability of a person without hearing or speech disabilities to communicate using voice communication services. 47 U.S.C. 225(a)(3).

There are currently three forms of Internet-based TRS: Video Relay Service (VRS) allows people with hearing or speech disabilities who use sign language to communicate with voice telephone users through video equipment; Internet Protocol Relay Service (IP Relay) allows an individual with a hearing or

speech disability to communicate with voice telephone users by transmitting text via the Internet; and Internet Protocol Captioned Telephone Service (IP CTS) permits a person with hearing loss to have a telephone conversation while reading captions of what the other party is saying on an Internet-connected device.

TRS Fund. The provision of Internet-based TRS is supported by the TRS Fund. In addition, the TRS Fund supports interstate use of certain non-Internet-based relay services, which are provided through state TRS programs. Entities required to make contributions to the TRS Fund include providers of telecommunications service, interconnected VoIP service, and non-interconnected VoIP service.

Disability Advisory Committee Report on TRS and Video Conferencing. The structure of the Commission's TRS program reflects the fact that, historically, most people have used wireline or wireless telephone networks to communicate remotely by voice. Thus, North American Numbering Plan (NANP) telephone numbers are used to route calls between TRS users and hearing people, and the provision of TRS, to date, has typically included a voice-only telephone call, with originating and terminating NANP numbers. To address concerns about the inaccessibility of video conferencing platforms, the Commission requested the Disability Advisory Committee to study the use of TRS on IVCS platforms. In a report delivered in February 2022, the committee states:

> [I]t is impossible for users of most video conferencing platforms and most TRS providers to natively interconnect their preferred TRS provider to video conferencing platforms. Typically, TRS users can only interconnect their preferred TRS provider to a video conferencing platform by dialing in via the public switched telephone network.

Such a dial-in connection is often unavailable. Further, when a dial-in connection to a video conference is available, a TRS user may encounter multiple difficulties. For example, the user must use two separately connected devices—one to participate in the video portion of the conference and the other to communicate with the TRS provider's communications assistant (CA), who is only connected to the

video conference via an audio-only dial-in connection. As a result, the user must navigate multiple user interfaces, which can cause confusion, fatigue, and other barriers to full participation in a video conference. If multiple TRS users join the conference, with each user having a double presence as the user's video image and a CA's voice-only icon, the result can increase the overall cognitive load for video conference hosts and participants to process discussion and facilitate shared dialogue. Further, the CA's audio-only connection may result in poor audio quality, causing errors in interpretation or captioning. The committee also explains that it is not clear whether the Commission's rules allow other methods of linking a TRS CA to a video conference. Since the committee's recommendations were published, one VRS provider has reported that it now offers a means of integrating its provision of VRS with one video conferencing platform.

For these reasons, the Disability Advisory Committee recommends that the FCC resolve these issues by: facilitating a technical mechanism for TRS providers to natively interconnect TRS services, including video, audio, captioning, and text-based relay to video conferencing platforms; ensuring that users can seamlessly initiate TRS from the provider of their choice on any video conferencing platform; addressing the integration of CAs and the overall accessibility challenges of videoconferencing platforms; and clarifying the legal ability of TRS providers to seek compensation for service provided for video conferences from the TRS fund.

Proposed Rules

The Commission proposes to amend its rules to improve the accessibility of video conferencing, whether used for work, education, healthcare, entertainment, or other activities. The proposals in this document are applicable to those services that fit the statutory definition of *interoperable video conferencing service*. *See* 47 U.S.C. 153(27). In this document, when the Commission refers to *video conferencing* or *video conferences*, it means video conferencing or video conferences that involve the use of an *interoperable video conferencing service*, as defined.

First, to address the integration of TRS CAs and the overall accessibility challenges of videoconferencing platforms, the Commission proposes to adopt additional performance objectives for the accessibility of interoperable video conferencing services. Specifically, the Commission proposes that such performance objectives include the provision of speech-to-text (*e.g.*, captioning of all voice communications in a video conference) and text-to-speech; and enable the use of sign language interpreting. The Commission seeks comment on whether additional amendments are needed to ensure that video conferencing is accessible. The Commission also seeks comment on whether technical standards are available or could be fashioned for use as safe harbors, whereby certain performance objectives for IVCS can be satisfied by providing access to relevant forms of TRS.

Second, the Commission proposes to amend part 64 of its rules to provide that the TRS Fund can be used to support the provision of TRS for video conferencing users—whether or not the video conferencing platform can be accessed via a NANP telephone call. In addition, the Commission proposes certain modifications to its rules to specify the conditions under which the TRS Fund will support the provision of TRS with video conferencing.

Amending Part 14 to Improve the Accessibility of Video Conferencing

Performance Objectives. Section 716 of the Act directs the Commission to adopt performance objectives to ensure the accessibility, usability, and compatibility of ACS. 47 U.S.C. 617(e)(1)(A). To implement this requirement, the Commission in 2011 adopted general performance objectives specifying that input, control, and mechanical functions are locatable, identifiable, and operable by people with disabilities and that all information necessary to operate and use the product is available to people with disabilities. For example, ACS must be operable without hearing, which is defined to mean that it must provide at least one mode that does not require user auditory perception. 47 CFR 14.21(b). These performance objectives provide a definition of *accessible* for purposes of the Part 14 rules. Other performance objectives define *usable* and *compatible*. 47 CFR 14.21(c), (d). These general performance objectives are applicable to IVCS as well as other types of ACS.

The Commission believes that the performance objectives in part 14 of its rules have encouraged innovative and effective approaches to achieve accessibility for covered equipment and services. However, given the seismic shift in how society communicates, and based on this proceeding's record and the Disability Advisory Committee Report, the Commission seeks comment on whether to amend the rules to define more specific objectives for making IVCS accessible. The Commission notes that some IVCS providers have added accessibility features to their products in response to consumer need during the COVID-19 pandemic. The Commission seeks comment on the effectiveness of these features in providing accessibility, the extent of their availability, their ease of use, and how they could be improved. The Commission also seeks comment on what other features may be necessary to make IVCS accessible and how the current performance objectives could be modified or supplemented to ensure that such features are provided if achievable.

Disability Advisory Committee Recommendations. As the Disability Advisory Committee explained, without the ability to have other participants' audio communications converted to text or sign language, as appropriate, and to have their own text or sign language communications converted to speech, a person who is deaf or hard of hearing or has a speech disability may not be able to effectively participate in a video conference. The Committee recommends that the Commission ensure, at a minimum, that video conferencing platforms: include built-in closed captioning functionality that is available to all users, including to users with free accounts if the platform provides such accounts; fully integrate support for TRS CAs, including video, audio, captioning, and text communication; and allow users, including CAs, to control the activation and customize the appearance of captions and video interpreters, including caption activation, size, color, background, layout, and positioning, pinning and multi-pinning, side-by-side views, hiding non-video participants, including American Sign Language (ASL) interpreters, Certified Deaf Interpreters, and other interpreters, and cued language transliterators, and exercise this control on their own clients without reliance on video conference hosts.

The Commission proposes to amend the performance objectives in part 14 of its rules to address these recommendations and promote innovative future solutions for making IVCS accessible. Consistent with

section 716 of the Act, the proposals would permit IVCS providers to choose whether to satisfy their accessibility obligations by including certain features as native applications or by using third party applications, peripheral devices, software, hardware, or CPE that is available to the consumer at nominal cost and that individuals with disabilities can access. 47 U.S.C. 617(b)(2)(B). *Nominal cost* means that any fee for third-party software or hardware accessibility solutions shall be small enough so as to generally not be a factor in the consumer's decision to acquire a product or service that the consumer otherwise desires. *Implementing the Provisions of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, published at 76 FR 82353, December 30, 2011. IVCS providers must maintain records of their efforts to ensure that their services and products are accessible, 47 CFR 14.31(a), and the Commission's rules do not provide an exemption from this requirement for service providers who rely on third-party applications or equipment to achieve accessibility.

Captions. The Commission proposes to adopt, as a performance objective specific to IVCS, the provision of captions for the audio communications in video conferences. For people who are deaf or hard of hearing, a lack of captions can make meaningful interaction impossible. Some video conferencing platforms offer captions, which are typically provided via automatic speech recognition (ASR). However, according to the Disability Advisory Committee, captions are not available on all platforms, or on all video conferences for platforms that do provide them, and where they are available they may be of insufficient quality to ensure functional equivalence.

Automatic captioning, when available, sometimes produces incomplete or delayed transcriptions, while the delays inherent in live captioning can lead to cognitive overload as users try to follow poorly synchronized visual and textual conversations. In addition, because voice conversations go quickly and it may be difficult to immediately identify who is speaking, video conferences may cause some people who are deaf or hard of hearing to lose vital portions of voice communications. Finally, some research indicates that ASR technology may show algorithmic bias in the accuracy with which it transcribes voices, particularly in the transcription of certain speakers.

The Commission proposes to amend § 14.21 of its rules to make clear that captioning is an essential component of accessibility in the context of IVCS. Section 14.21(b)(2)(iv) of the Commission's rules currently specifies that accessibility includes providing auditory information through at least one mode in visual form and, where appropriate, in tactile form. 47 CFR 14.21(b)(2)(iv). As noted above, however, the record indicates that not every IVCS offers captioning, and that where captioning is offered, the quality is often uneven. Therefore, the Commission proposes to amend § 14.21(b)(2)(iv) of its rules to read (with proposed new text shown in bold):

> *Availability of auditory information*. Provide auditory information through at least one mode in visual form and, where appropriate, in tactile form. **For interoperable video conferencing services, provide at least one mode with captions that are accurate and synchronous. The accuracy and latency of such captions should be at minimum comparable to that provided on TRS Fund-supported captioned telephone services.**

The Commission seeks comment on this proposal. Does this language provide an appropriate level of specificity, given, on the one hand, the need for effective guidance on what accessibility requires, and on the other, the need to allow flexibility in implementation and innovative solutions, and to avoid mandatory technical standards? The Commission has a pending proceeding on quantifying minimum standards for the quality of captions provided by TRS Fund-supported captioned telephone services and establishing methods of measuring caption quality. Pending completion of that proceeding, this proposed performance objective states that caption quality should be generally comparable to that offered by TRS Fund-supported services. In the future, with the adoption of metrics for captioned telephone services by the Commission, such metrics could serve as a safe-harbor technical standard for IVCS as well.

Is this level of quality sufficient to provide a functionally equivalent experience for all users, including users of color or users with accents? Alternatively, the Commission invites comment on the extent to

which current performance objectives, such as § 14.21(b)(2)(i) of its rules, already require that IVCS provide an appropriate level of caption quality. How can the FCC promote improvements in ASR technology to address any existing algorithmic bias?

In some instances, the host of a video conference may prefer (or have a legal obligation) to use another captioning service—be it live captioning or ASR—rather than the IVCS provider's captioning feature. According to the Disability Advisory Committee:

> When out-of-band interpreters, transliterators, or captioners can be secured, many video conferencing platforms do not provide sufficient accessibility features to ensure that they can be integrated properly in a video conference to ensure accessibility. Some video conferencing platforms have problems properly joining and integrating caption streams to be displayed on streams, requiring users to open a separate web browser or application to view captions.

To address this concern, the Commission seeks comment on whether to specify that IVCS enable the use of alternative captioning methods, such as Communication Access Realtime Translation (CART). CART is the instant translation of the spoken word into English text using a stenotype machine, computer, and realtime software. Similarly, should IVCS be compatible with TRS Fund-supported captioning, so that such captioning can be displayed in a video conference if requested by a TRS user? Is there a commonly used technology that would enable the display of, *e.g.*, CART or IP CTS captioning to all participants in a video conference? Would the adoption of such a performance objective be consistent with section 716(b)(2) of the Act, 47 U.S.C. 617(b)(2), which allows covered service providers to meet their accessibility obligations either natively or by using third party applications or equipment?

Text-to-Speech. To ensure that IVCS is operable by people with disabilities who need to communicate by text, the Commission proposes to amend 47 CFR 14.21(b)(1)(ix), which specifies that ACS be operable in at least one mode that does not require user speech, to read (with proposed new text shown in bold):

Operable without speech. Provide at least one mode that does not require user speech. **For interoperable video conferencing services, provide at least text-to-speech functionality.**

The Commission seeks comment on this proposal. Would text-to-speech and captions, along with compatibility with refreshable braille displays or other peripheral devices, make IVCS accessible for people who are deafblind and for people with speech disabilities who cannot or do not use Speech-to-Speech relay service (STS)? STS is a form of TRS that allows individuals with speech disabilities to communicate with voice telephone users through the use of specially trained CAs who understand the speech patterns of persons with speech disabilities and can repeat the words spoken by that person. 47 CFR 64.601(41). STS is currently provided only through state-certified relay service programs. Should the Commission also specify that IVCS support the use of IP Relay, and would such a specific performance objective be consistent with the flexible compliance approach permitted by section 716(b)(2) of the Act? Is there an effective means for users to connect with and use IP Relay in video conferences?

Sign Language Interpreting. The Commission also proposes to adopt, as a performance objective, that IVCS enable the provision of sign language interpreting, such as through a third-party interpreting service or a VRS provider. According to the Disability Advisory Committee, many video conferencing platforms do not provide sufficient accessibility features to ensure that interpreters can be integrated properly in a video conference. Further, at present, video conferencing platforms generally are not configured to allow the connection of VRS CAs to a video conference, except through a voice-only dial-in connection. The need to connect a VRS CA through a dial-up connection poses multiple difficulties for the user, including the need to use two separately connected devices, splitting attention between the two in a way that appears to fall short of functionally equivalent participation in a video conference. However, some companies are developing ways to enable VRS CAs to have a video presence on a video conferencing platform, enabling a solution to these problems. A VRS provider, Sorenson Communications, has made available to its customers an application that allows its CAs to participate in a Zoom conference call.

To provide guidance on how to make video conferencing accessible to people who use sign language, the Commission proposes to add a new performance objective to § 14.21 of its rules to specify that accessibility for IVCS includes enabling an effective video connection for sign language interpreters, including VRS CAs, so that they can be pinned and viewed by those who use such services. The Commission seeks comment on this proposal and its costs and benefits, and also seeks comment on the following language for this proposed performance objective:

> *Sign language interpretation.* Interoperable video conferencing services shall enable the use of sign language interpretation, including the transmission of user requests for sign language interpretation to providers of video relay service and other entities and the provision of sufficient video quality to support sign language communication.

To ensure that providers of video remote interpreting (VRI) and VRS can connect with an IVCS provider's platform, should the Commission also specify in this performance objective that IVCS providers make technical specifications available on their websites, indicating how to make use of the relevant capabilities? Are there other forms of visual communication that this rule should cover for use on video conferences? For example, Cued English uses hand shapes, hand placements, and non-manual signals on the mouth to provide a transliteration of spoken English for some individuals with hearing disabilities. How would requiring the ability to connect interpreters or transliterators for additional forms of visual communication (if procured, *e.g.*, by the host or organizer of a video conference) affect the costs and benefits of this proposed rule?

The Commission also seeks comment on whether additional performance objectives should be specified for IVCS to address other accessibility concerns. For example, are the current performance objectives in part 14 of the Commission's rules sufficient to ensure that people with disabilities other than hearing and speech disabilities can effectively participate in video conferences?

User Interface Controls. The Disability Advisory Committee and some commenters raise a concern that video conferencing platforms do not provide certain user interface controls needed for accessibility. To address these concerns, the committee recommends that the Commission ensure that such platforms:

> Allow users, including CAs, to control the activation and customize the appearance of captions and video interpreters, including caption activation, size, color, background, layout, and positioning, pinning and multi-pinning, side-by-side views, hiding non-video participants, including ASL interpreters, [Certified Deaf Interpreters], other interpreters, and cued language transliterators, and exercise this control on their own clients without reliance on video conference hosts.

Section 14.21(b) of the Commission's rules generally requires that the control functions necessary for a user to operate a covered service or product be accessible. The Commission invites comment on the extent to which the existing performance objectives already require control functions that would address the committee's recommendation. If not, would adding a performance objective such as the following effectively and appropriately address those concerns?

> Interoperable video conferencing services shall provide user interface control functions that permit users to adjust the display of captions, speakers and signers, and other features for which user interface control is necessary for accessibility.

Should the Commission identify additional kinds of user interface controls that are necessary for accessibility? Commenters are invited to recommend language for performance objectives that would provide appropriate guidance in this area.

Costs and benefits. The Commission seeks comment on the costs and benefits of the above proposals. What benefits would result, and what costs would IVCS providers and other affected entities incur to: enable captioning of video conferences; provide text-to-speech capabilities; enable a video connection for

sign language interpreters and VRS CAs; improve user interface controls; and address other possible performance objectives discussed above or in responsive comments?

How should the Commission quantify such incremental costs? How should it compare those costs with the benefits to IVCS users? Are there cost savings the Commission should consider—such as costs that could be incurred by video conference hosts or participants to provide captioning in the absence of platform-provided captioning? Further, IVCS providers may view accessibility not only as a public obligation, but also as a market opportunity. The Commission seeks comment on this view.

In addition to describing and (where possible) quantifying the benefits that would result from meeting all the performance objectives proposed above, the Commission invites comment on the extent to which particular performance objectives are achievable, either at present or in the foreseeable future. The Commission stresses that each of the amendments proposed above, if adopted, would remain subject to the general condition that a provider or manufacturer need not meet the objective if it is not achievable to do so. Therefore, the Commission may adopt new or modified performance objectives even if they are not immediately achievable for every provider. However, the Commission can better assess the likely benefits of these proposals if there is evidence as to whether or not a performance objective is likely to be achievable, for at least some covered entities, within the foreseeable future.

Legal Authority. The Commission believes the Act provides legal authority for the above proposals. Section 716 of the Act requires providers of ACS and manufacturers of equipment used with ACS, including interoperable video conferencing service, to make their services and equipment accessible to and usable by individuals with disabilities, unless that is not achievable. The Act directs the Commission, in broad terms, to adopt implementing regulations that, among other things, include performance objectives to ensure the accessibility, usability, and compatibility of advanced communications services and determine the obligations under this section of manufacturers, service providers, and providers of applications or services accessed over service provider networks. 47 U.S.C. 617(a)(1), (b)(1). Further, whenever that requirement is not achievable, a service provider shall ensure that its service is compatible

with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, unless this requirement too is not achievable. 47 U.S.C. 617(c). A manufacturer of equipment used for IVCS is similarly required to make its products accessible to and usable by people with disabilities, unless it is not achievable to do so. The Commission believes its proposals fall within this broad grant of authority and are consistent with other provisions of section 716 of the Act, including the allowance for flexible implementation through either native or third-party applications, the prohibition on mandating technical standards, and the condition that compliance is not required if it is not achievable. 47 U.S.C. 617(a)(1), (b)(1), (e)(1)(D). The Commission seeks comment on this analysis.

The Commission also seeks comment on whether there are other sources of authority supporting the above proposals. For example, in 2007 the Commission found that it had authority, ancillary to section 225 of the Act, to require interconnected providers of VoIP service to provide access to TRS. Could the Commission also find that it has authority ancillary to section 225, or other provisions of the Act, to require video conferencing service providers to provide TRS access to interoperable video conferences? If so, what would be the bases for such a finding?

Safe Harbor Technical Standards. Section 716 of the Act provides that the Commission shall not adopt mandatory technical standards for ACS accessibility. However, the Commission may adopt technical standards as a safe harbor for such compliance if necessary to facilitate the manufacturer's and service providers' compliance. 47 U.S.C. 617(e)(1)(D). The Commission therefore seeks comment on whether technical standards are available (or in development)—*e.g.*, WebRTC or portions thereof—that could serve as safe harbors for IVCS compliance with one or more applicable performance objectives, including the additional performance objectives proposed above, whereby a performance objective can be satisfied if an IVCS complies with the technical standard. WebRTC, short for Web Real-Time Communications, is an open-source internet standard that allows for real-time video communications through a user's internet browser, foregoing the need for plug-ins or standalone third-party software. On January 26, 2021, the World Wide Web Consortium and the Internet Engineering Task Force announced WebRTC as

an official standard. Although designed as a tool for internet browsers, WebRTC applications are now also being developed for mobile and Internet of Things devices.

Any commenter who proposes that a technical standard be recognized as a safe harbor is invited to discuss the costs and benefits of the proposal, and how the Commission would verify compliance with the standard. In general, are there costs or benefits to innovation of recognizing certain technical standards as safe harbors? Given the pace of technological innovation, how often should a safe harbor be updated, or should it be designated to expire after a date certain?

The Commission also seeks comment on how it can assist with or promote the development of safe harbor technical standards in this area. For example, there are numerous IVCS providers, each with a specific technology configuration, and there are multiple VRS providers as well. Would substantial costs be saved if all companies adhered to a common technical standard for integrating interpreters and VRS CAs into video conferences? How could the Commission facilitate the development of a useful standard?

Providing TRS in Video Conferences

Responding to the Disability Advisory Committee's recommendations, the Commission proposes to amend its rules to clarify that the integrated provision of TRS to enable functionally equivalent participation in video conferences can be supported by the Interstate TRS Fund. Just as the TRS Fund has long been used to support the provision of TRS with audio-only teleconferencing, the Commission believes it is necessary and appropriate, as a general matter, that the TRS Fund be used to support the provision of TRS with video conferencing.

The Commission tentatively concludes that section 225 of the Act authorizes the Commission to support the integrated provision of TRS in video conferences, without any need for either the TRS user or the CA to place a dial-up, voice-only call to the video conferencing platform. By *integrated provision of TRS* in a video conference, the Commission means an arrangement whereby communication between the CA (or automated equivalent) and video conference participants, whether by voice, text, or sign-language video,

takes place on the video conferencing platform (where it can be available to all participants), rather than through a separate dial-up connection. The Act defines telecommunications relay services as: telephone transmission services that provide the ability for an individual who is deaf, hard of hearing, deaf-blind, or who has a speech disability to engage in communication by wire or radio with one or more individuals, in a manner that is functionally equivalent to the ability of a hearing individual who does not have a speech disability to communicate using voice communication services by wire or radio. 47 U.S.C. 225(a)(3) (emphasis added). Applying this definition, the Commission tentatively concludes that when the provision of a relay service is integrated with a video conferencing platform (without using a dial-up, voice-only connection), the provision of such service to an eligible TRS user is a telephone transmission service that enables communication by wire or radio in a manner that is functionally equivalent to the ability of a hearing individual who does not have a speech disability to communicate using voice communication services by wire or radio.

As indicated above, section 225 of the Act defines TRS in terms of its purpose—to enable people with hearing or speech disabilities to communicate by wire or radio in a manner that is functionally equivalent to how people without such disabilities use voice communication services. Both *radio communication* and *wire communication* are broadly defined in the Act as the transmission of writing, signs, signals, pictures and sounds of all kinds, including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission. 47 U.S.C. 153(40), (59). These definitions include wire or radio communication using Internet Protocol. Further, the Commission believes that *interoperable video conferencing service*, which is defined to include audio communication, is appropriately characterized as a voice communication service for purposes of section 225 of the Act.

While *telephone transmission service* is not defined in the Act, the Commission has given this term a similarly broad interpretation. As the Commission explained in 2002, the use of this phrase to define TRS is constrained only by the requirement that such service provide a specific functionality, namely the ability to communicate by wire or radio in a manner functionally equivalent to voice communication.

Further, section 225 of the Act directs the Commission to ensure that regulations prescribed to implement that section encourage, consistent with section 7(a) of the Act, the use of existing technology and do not discourage or impair the development of improved technology. 47 U.S.C. 225(d)(2). In its prior decisions authorizing new forms of TRS, the Commission has found that Internet-based relay services are not limited to a specific technical configuration. For example, when finding IP CTS to be a compensable form of TRS, the Commission emphasized that the service could be initiated, set up, and provided in numerous ways, including using specific telephone equipment or IP-enabled devices, and various combinations of the public switched telephone network and IP-enabled networks. Similarly, when the Commission approved compensation for VRS, it noted that the service was under development using a number of equipment configurations. Further, the Commission has not interpreted *telephone transmission service* as requiring the use of telephone numbers. For example, VRS users were not assigned NANP numbers until 2008.

The Commission seeks comment on the foregoing tentative conclusion and interpretation of its authority under section 225 of the Act. Among other things, comment is sought on whether anything in section 225 or elsewhere in the Act indicates that the Commission's authority in this context is limited to making TRS available only with voice services that rely on the use of NANP telephone numbers. How could such a restrictive interpretation be squared with the broad language of the statutory definition of TRS?

Below, the Commission seeks comment on how to modify the Commission's TRS rules to facilitate such integration, ensure the appropriate use of VRS with video conferencing, and prevent waste, fraud, and abuse. First, the Commission proposes and seeks comment on measures that specifically address the integration of VRS with video conferencing. Then, it seeks comment on whether additional rule amendments are needed to specifically address the integration of other types of TRS with video conferencing. Finally, the Commission proposes to amend certain generally applicable TRS rules to address the integrated provision of TRS regardless of type.

Integrating the Provision of VRS with Video Conferencing.

The Commission tentatively concludes that the integrated provision of VRS with video conferencing is often necessary to enable sign-language users to communicate in a functionally equivalent manner. By *integrated provision of VRS* in a video conference, the Commission means an arrangement whereby a CA is included as a participant in the video conference and all communication between the CA and the participants takes place on the video conferencing platform rather than through a separate connection. First, the only alternative for connecting a VRS CA to a video conference—using a dial-up, voice-only connection—is often unavailable. Assuming the video conferencing platform allows a dial-up connection, it is usually the video conference organizer or host who determines whether a dial-up option is provided. Similarly, the conference organizer or host may or may not hire a sign language interpreter to provide communication assistance for a video conference. Second, the need to connect a VRS CA through a dial-up connection poses multiple difficulties for the user. For example, the VRS user must navigate between two separately connected devices and user interfaces—one to participate in the video portion of the conference and the other to communicate with the VRS CA—and this can cause confusion, fatigue, and other barriers to effective communication. In addition, the CA who, unlike other participants, is limited to an audio connection, is unable to read documents or other text that may be displayed, interpret facial expressions, or attend to other visual cues on which video conference participants often rely for effective communication. The Commission seeks comment on this tentative conclusion.

The active development and deployment of technological solutions for the integrated provision of VRS in a video conference has crystallized a number of issues regarding the application of the TRS rules to such integration. Therefore, the Commission proposes to amend its rules, as set forth below, to facilitate such integration, ensure the appropriate use of VRS with video conferencing, and prevent waste, fraud, and abuse.

In addition, the Commission invites the submission of comments describing in detail any ongoing efforts by VRS providers and IVCS providers to enable the integration of VRS with IVCS, and how far their development has progressed. Comment is sought on the extent to which the integration methods and technologies currently being developed or deployed are usable (or can be made usable) with more than

one video conferencing platform or more than one VRS provider. What steps can the Commission take to encourage or assist with the development of standardized or open-architecture solutions, so that IVCS providers, TRS providers, and the TRS Fund do not needlessly incur duplicative costs to support multiple solutions unique to each video conferencing platform and VRS provider? What changes in the TRS interoperability rule, or other Commission rules, would promote wider availability of effective technical solutions in this area? To the extent that technological solutions are feasible, should the Commission not only *authorize*, but also *require* VRS providers to provide VRS with IVCS on an integrated basis?

User Validation and Call Detail. To collect compensation from the TRS Fund, a VRS provider must validate that the person using a video connection to place or receive a VRS call is a registered VRS user. Ordinarily, a person's status as an eligible user is verified by means of the NANP telephone number from which or to which a call is placed. By contrast, video conference participants typically enter a video conference via the Internet (*e.g.*, by clicking the link provided by the host of the video conference) without dialing from a line associated with a telephone number. As discussed earlier, while some video conferencing platforms may allow a participant to connect via a voice-only, dial-up connection, the availability of such a connection for a particular video conference is up to the conference host or organizer. Further, VRS users may connect to a video conference without first contacting their VRS provider. The Commission seeks comment on how VRS providers can most efficiently and effectively confirm a video conference participant's eligibility for VRS when the user has not joined the video conference by placing a call from a NANP telephone number.

For example, should the Commission amend its rules to specify that, to validate the integrated provision of VRS in a video conference, information may be entered in a video conferencing application by a registered user and transmitted by the IVCS provider to a VRS provider, along with a request to provide a CA? If so, what information should be provided? Would a user's NANP telephone number suffice—even though it is not actually being used to connect with the video conference? Or should the Commission require a log-in ID and password? Should the Commission allow the provision of integrated VRS in video conferences pursuant to an enterprise registration, and if so, would the telephone number

associated with an enterprise videophone suffice for validating such use? Are there other methods of validation that should be permitted in the video conferencing context?

The Commission also seeks comment on how the rules should address video conferences that are initiated informally, without an advance invitation, by one person dialing the telephone number, entering an email address, pressing an icon or otherwise contacting one or more other parties using a service such as GoogleMeet or FaceTime. Are there currently available or in development any technologies for integrating a CA with this type of video conference? Do the existing TRS rules and procedures suffice to verify, for these kinds of video conferences, that the caller or called party is a registered VRS user? Would this scenario require any changes to the TRS rules?

In addition, the VRS provider will need to be able to collect and provide an appropriate call detail record to submit to the TRS Fund administrator. Because the rules may apply differently to video conferences in a number of respects, the Commission proposes to require that call detail records submitted by VRS providers identify, as such, video conferences in which VRS is provided on an integrated basis. What other information should the Commission require VRS providers to collect and submit to the TRS Fund administrator to identify, for billing purposes, the integrated provision of VRS in a video conference? What routing information is available for the TRS Fund administrator to verify the presence of the VRS user and the CA or CAs in a video conference? Are originating and terminating Uniform Resource Locators (URLs) needed, and if so, how can they be collected? Alternatively, is it sufficient to provide the user's phone number or log-in, in lieu of the originating URL? How would VRS providers comply with the requirement to employ an automated record keeping system to capture call record data? How would VRS providers and the TRS Fund administrator identify non-compensable international calls? How would VRS providers verify that, based on the parties involved, the provision of TRS in a video conference is eligible for TRS Fund compensation? For example, a video conference involving only VRS users does not require a CA to relay the conversation and so would not be eligible for TRS Fund compensation. In addition, comment is sought generally on what measures VRS providers should be

required to take to prevent misuse of VRS or waste, fraud, and abuse of the TRS Fund in the context of video conferencing.

CA-Related Issues. There may be a number of situations in which more than one VRS CA participates in a video conference. This could occur, for example, if two or more participants send service requests to different providers. The Commission seeks comment on whether the TRS rules should apply differently in this respect to a video conference than to a teleconference. In a multi-party teleconference involving at least one hearing user, our rules do not restrict the number of different TRS providers whose services may be used by various parties to the call. Given that any VRS provided on an integrated basis will be available to all participants, are any restrictions warranted on the number of different providers who may provide VRS in a single video conference?

The Commission also seeks comment on whether to amend the rules to authorize a single VRS provider to assign multiple CAs for a video conference in certain circumstances (and to receive additional compensation from the TRS Fund for minutes involving multiple CAs). First, two or more VRS users may each request service from the same VRS provider on the same video conference. In an analogous teleconference where two or more users have connected through VRS, compensation would be paid for multiple calls—with each user's connection through a CA being treated as a separate call. However, in a video conference with integrated VRS, unlike a teleconference, it is possible for all participants to be served by one CA. In such cases, should the TRS Fund support the provision of a separate CA for each user, or, to prevent waste (and potential confusion among video conference participants), the number of CAs provided be limited, and if so, based on what criteria?

Second, in certain kinds of video conferences, it may be desirable for two CAs to participate in the call, working as a team—even if only one participant has requested VRS. Under the current TRS Fund compensation scheme, additional compensation is not paid to support multiple CAs in a teleconference if only one participant has connected through VRS. However, video conferences may often involve dynamic interaction among multiple participants. According to one ASL interpreting service, a team of

two interpreters may be recommended based on the dynamics of the interactions and number of participants involved, for example, for highly interactive meetings, or legal requests, with multiple Deaf participants.

Should the Commission's rules be amended to allow a VRS provider to earn additional compensation for providing more than one CA in certain video conferencing scenarios, and if so, how should those situations be defined? For example, are there professional interpreter guidelines or best practices on which the Commission could rely that define when multiple ASL interpreters should be present at a meeting? The Registry of Interpreters for the Deaf, Inc., states that factors to be considered in deciding whether to provide team interpreting include: the length and complexity of the assignment; unique needs of the persons being served; physical and emotional dynamics of the setting; and avoidance of repetitive stress injuries for interpreters. To what extent are guidelines for community interpreting applicable in the VRS context? For example, length of an assignment may be a less relevant factor for VRS because interpreters can be more efficiently substituted for one another when they do not need to be physically present at a meeting. Are there any situations where the TRS Fund should support *more* than two CAs from a single VRS provider?

The Commission proposes that, in the ordinary case, if the VRS user who requested service leaves a video conference, or is disconnected, before the session ends, then the billable period has ended and the CA should leave the video conference. In the context of an ordinary VRS call or conference call, if the TRS user is voluntarily or involuntarily disconnected from the call, he or she must initiate another call with a new CA. The Commission seeks comment on this proposal and on what, if any, exceptions should be allowed. For example, if other registered VRS users are participating in the same video conference, who were being assisted by the same CA, should the initial CA be permitted to stay on the video conference for a limited period to ensure continuity of service, and if so, for how long? Are other flexible alternatives available to ensure seamless VRS for other eligible users or ensure a smooth transition between CAs, while minimizing any risk of waste, fraud, or abuse? Are there any other issues that may

arise when multiple VRS users and other participants are present in the same IVCS call, and how should they be resolved?

VRS CAs generally must stay on a call for a minimum of 10 minutes, after which they may be replaced by another CA. 47 CFR 64.604(a)(1)(v). The Commission seeks comment on whether to adjust this timeframe for the provision of VRS in video conferences. If so, what timeframe would be reasonable?

In addition, to ensure a seamless takeover between CAs from the same VRS provider during a video conference, is it desirable for a replacement CA to join the video conference and observe or acquire background information for some period of time before taking over from the first CA? If so, what would be a reasonable transition period? Is there a standard timeframe that VRS providers should adhere to, or should it be left to the discretion of the CAs or the VRS user? Are there professional guidelines or best practices that shed light on this question? Should a VRS provider be compensated for each CA's time while both the initial and replacement CAs are on the call? How can the Commission encourage uninterrupted VRS call takeovers during video conferences, while not unduly burdening the TRS Fund and Fund contributors?

Privacy Screen Rule. The Commission proposes to modify its rules to allow flexibility for VRS users and CAs to turn off video while participating in a video conference. The current rules prohibit a VRS CA from enabling a visual privacy screen or similar feature during a VRS call and require the CA to disconnect a VRS call if the caller or called party enables a visual privacy screen or similar feature for more than five minutes or is otherwise unresponsive or unengaged for more than five minutes. 47 CFR 64.604(a)(6). A *visual privacy screen* is defined as a screen or any other feature that is designed to prevent one party or both parties on the video leg of a VRS call from viewing the other party during a call. 47 CFR 64.601(a)(52). The Commission adopted this rule in 2011 as one of numerous measures aimed at halting the epidemic of fraud and abuse then plaguing the VRS program. The rule's stated purpose was to stop illicit schemes that result in calls running without any communication between the parties for the sole purpose of fraudulently billing the Fund.

In a multi-party video conference, however, a participant may turn off his or her video camera for various reasons that may not indicate lack of engagement with the discussion. For example, in some video conferences, the host may request that all participants turn off their videos unless speaking, to make it easier for participants who are deaf to view a sign language interpreter. Or, an interpreter may stop his or her video when a second interpreter is present and is interpreting a particular person's voice or signing. Further, on a video conference where one or more participants are speaking at length, participants who are deaf (like other participants) may choose to turn off their videos until it is their turn to speak.

The Commission proposes to allow VRS CAs to continue providing relay services integrated with a multi-party video conference when the VRS user who requested service has turned off his or her video connection for more than five minutes, as long as at least one other party is continuing to speak and the VRS user is still connected to the video conference. Under the proposed amendment, if five minutes elapse in which no party on a multi-party video conference is responsive or engaged in conversation, the VRS CA shall follow the current procedure, *i.e.*, announce that VRS will be terminated and leave the video conference. The Commission proposes to define *multi-party video conference* as a video conference with three or more participants, excluding VRS CAs and any other participant providing an accommodation for a participant. It also proposes to allow VRS CAs to turn off their video connections when taking turns relaying conversation with another VRS CA on a multi-party video conference. The Commission seeks comment on these proposals. Are there other steps that should be taken to ensure that modifying this rule does not lead to misuse of TRS or fraudulent billing to the TRS Fund? More generally, are there other precautions the Commission should take to prevent the inappropriate or excessive provision of TRS in video conferences, with the intention of increasing a TRS provider's compensable minutes?

Integrating Other Types of TRS with Video Conferencing.

The Commission seeks comment generally on the need to facilitate the integration of non-VRS types of TRS with video conferencing and on the existence and progress of any efforts to develop technology to

enable such integration. To the extent that such integration is needed and feasible, should the Commission adopt service-specific rule changes, *e.g.*, amendments analogous to those proposed above for VRS, to address the integration of other types of TRS with video conferencing? What rule changes would facilitate the integrated provision of each type of TRS with video conferencing, ensure the appropriate use of these TRS Fund-supported services in that context, and prevent waste, fraud, and abuse?

IP Relay. The Commission seeks comment on the extent to which the integrated provision of IP Relay in video conferences would facilitate functionally equivalent communication. Would such integrated provision of IP Relay enhance functionally equivalent communication in video conferences for those segments of the TRS-eligible population served by IP Relay, such as persons who are deafblind and persons with speech disabilities? As the Commission has noted, IP Relay can be enhanced with adaptive technologies such as refreshable Braille displays and screen readers, making it particularly useful for consumers who are deafblind. Have methods and technologies been developed to enable such integrated provision of IP Relay? Could the needs of these communities be served more efficiently or effectively if IVCS providers make available text-to-speech and speech-to-text (captioning) functionality, pursuant to part 14 of the Commission's rules? Alternatively, would IP Relay be needed for certain populations to effectively participate in a video conversation in a way that is functionally equivalent?

If the integrated provision of IP Relay with video conferencing is achievable, what service-specific amendments to the rules would facilitate such integration, ensure the appropriate provision of IP Relay in this context, and prevent waste, fraud, and abuse? How can the Commission ensure that only registered IP Relay users can use IP Relay in a video conference? Would the same sign-on procedure and request for a CA work in the context of IP Relay as for VRS? Are there CA-related issues for IP Relay similar to those proposed above for VRS?

IP CTS. The Commission seeks comment on the extent to which the integrated provision of IP CTS in video conferences would facilitate functionally equivalent communication for IP CTS users. Have methods and technologies been developed to enable such integrated provision of IP CTS? The

Commission notes that IVCS providers are permitted to meet the part 14 performance objective of providing auditory information in visual form either by implementing a captioning solution on the platform itself or by using third-party solutions available to consumers at nominal cost. *See* 47 CFR 14.20(a)(3), 14.21(b)(2)(iv). Some IVCS providers currently offer captioning. To the extent that technology is developed for integrating IP CTS with video conferencing, are IVCS providers likely to implement such technology, either to comply with part 14 or to provide an additional captioning option for users? If the integrated provision of IP CTS with video conferencing is achievable, what rule changes would ensure appropriate use of such services in that context, while preventing waste, fraud, and abuse?

Non-Internet-Based TRS. The Commission seeks comment on whether and how the Commission should amend its rules to facilitate the provision in video conferences of non-Internet-based TRS—Text Telephone (TTY)-based TRS, Captioned Telephone Service (CTS), and Speech-to-Speech Relay (STS). For TTY-based TRS, a user calls a relay center and types the number to be called. The CA makes the telephone call and then relays the call between the parties by speaking what a text user types, and typing what a voice telephone user speaks. For STS, a CA (who is specially trained in understanding a variety of speech disorders) repeats what the caller says in a manner that makes the caller's words clear and understandable to the called party. CTS is similar to IP CTS, with captions being provided over the telephone network instead of the Internet.

These services, offered through state TRS programs, are intended for use on an ordinary telephone line. While users of these services may be able to participate in an IVCS call over a dial-up connection (where available), it is unclear whether or how these forms of TRS could be integrated with video conferencing platforms. Further, given the availability of IP CTS and IP Relay, which provide the functionality of CTS and TTY-based TRS for users with Internet access, it seems unlikely that there would be significant demand for integrated provision of these services in Internet-based video conferences. The Commission seeks comment on this assumption. STS, however, has no Internet-based equivalent. For STS, would enabling the CA, as well as the user, to participate in the video portion of a video conference permit more effective communication for the STS user? If so, have methods and technologies been developed to

enable such integrated provision of STS? What service-specific rule changes would facilitate such provision of STS, ensure appropriate use of STS in that context, and prevent waste, fraud, and abuse?

Rules Applicable to All TRS

The Commission seeks comment on proposed rule amendments that would be applicable both to VRS and to any other form of TRS that is integrated with video conferencing.

Confidentiality. The Commission proposes to amend its TRS confidentiality rule to address the video conferencing context. Specifically, the Commission proposes to amend the rule to expressly prohibit CAs from disclosing non-relayed content that is communicated in a video conference, or maintaining records of such content beyond the duration of the video conference. It also proposes to amend the confidentiality rule to codify the current practice that the rule expressly applies to TRS providers as well as CAs, so that the rule explicitly covers TRS calls (including but not limited to video conferences) where TRS is provided via ASR or other automatic processes, without the involvement of a CA. The rule currently provides that CAs are prohibited from disclosing the content of any relayed conversation regardless of content, and from keeping records of the content of any conversation beyond the duration of a call, even if to do so would be inconsistent with state or local law. 47 CFR 64.604(a)(2)(i). Some features of video conferences are not explicitly addressed by this rule. For example, a CA may become aware of sidebar conversations between two or more video conference participants (whether in speech or sign language) that the CA concludes are not intended to be communicated to other participants. Or the CA may review chat conversations or PowerPoints and other presentation material that the CA is not asked to relay to participants. Therefore, such content would not be included in relayed conversation.

The proposed rule would protect this content from disclosure and would require TRS providers and CAs to destroy any notes or records of such content upon termination of the call. For example, if a CA keeps notes during a call of, *e.g.*, party names, specialized vocabulary, such notes must be destroyed at the end of the call. The Commission seeks comment on this proposal. Are additional amendments to the Commission's confidentiality rule necessary to protect the privacy of participants? For example, should

the Commission also restrict CAs from disclosing the identities or other personal information regarding the participants in a video conference? Should any of the proposed restrictions on non-relayed content be applicable to other types of calls?

Exclusivity. Consistent with the Disability Advisory Committee's recommendation, the Commission proposes to prohibit exclusivity arrangements between TRS providers and IVCS providers. In general, an exclusivity arrangement is an express or implied agreement between a TRS provider and an IVCS provider that has the purpose or effect of preventing other providers from offering similar services to consumers. Such exclusivity arrangements may deprive consumers of the opportunity to rely on their chosen provider when using video conferencing services, contrary to the Commission's policy. Similarly, such exclusivity arrangements also may deprive conference hosts of the opportunity to select their preferred IVCS provider. What are the costs and benefits of exclusivity arrangements between TRS providers and IVCS providers? What types of arrangements should be prohibited as *de facto* exclusivity agreements? Are there any arrangements of this kind that should be allowed, *e.g.*, because they would provide net economic benefits in this context? Should the Commission also prohibit exclusivity arrangements between TRS providers and manufacturers or suppliers of video conferencing equipment or software? Should the Commission require that all contracts between TRS providers and IVCS service providers (or suppliers of video conferencing equipment or software) be available for inspection?

TRS vs. Other Accessibility Measures. Video conferencing can function as a substitute for in-person meetings as well as teleconferences. Historically, the Commission has prohibited the use of TRS for in-person meetings. Further, many employers, educational institutions, health care providers, government agencies, and other entities currently provide ASL interpreting, captioning and other accommodations—either voluntarily or to fulfill obligations under the Americans with Disabilities Act (ADA), Pub. L. 101-336, or other laws—to ensure that persons with hearing and speech disabilities can fully participate in meetings, classes, and other activities. In these contexts, dedicated ASL interpreters, captioners, and others may be trained and gain experience in a specific subject matter and may have the opportunity to prepare in advance for a scheduled meeting or class. The Commission seeks comment on the extent to

which such accommodations, as well as accessibility features that may be available on a video conferencing platform, may be more effective than TRS in making video conferences accessible. Would the universal availability of TRS in video conferences reduce the incentives of video conference organizers and hosts to provide more effective forms of accessibility? For example, is there a risk that the availability of integrated VRS in a video conference will dissuade organizers or hosts from voluntarily offering more effective ASL interpreting services, and if so, what steps should the Commission take to mitigate that risk? More generally, how can the Commission ensure that the use of TRS in video conferences does not detract from the effective implementation of ADA and other legal requirements?

Further, as stewards of the TRS Fund, the Commission has an obligation to prevent waste and ensure that TRS is available in the most efficient manner. When a non-TRS accessibility solution has been made available by a video conference organizer or an IVCS provider, are there steps the Commission should take to prevent unnecessary and potentially confusing provision of a redundant TRS solution? For example, if a video conference organizer employs or contracts for an ASL interpreting or captioning service, whether in fulfillment of legal obligations or voluntarily, should TRS Fund compensation be denied for the integrated provision of VRS in that video conference? How would such a restriction be effectuated as a practical matter? For instance, should the Commission require a VRS provider that offers integrated VRS to ensure that when VRS is requested for a video conference, the organizer or host is prompted to confirm whether or not ASL interpretation is being separately provided? To limit unnecessary requests for VRS, should the Commission require IVCS providers to make available a symbol that call organizers can activate in a call invitation or notice to indicate that ASL interpreters will be supplied on the call?

As a related matter, the Commission tentatively concludes that TRS providers must decline requests to reserve a TRS CA in advance of a scheduled video conference. The provision of ASL interpreting, captioning, and other assistance by prior reservation is a different kind of service, which is available from other sources, such as VRI services. The Commission has long held that the role of TRS is to be available for calls consumers choose to make, when they choose to make them, *i.e.*, to be the dial tone for

a call that requires assistance for effective communication. For this reason, the Commission requires TRS providers to handle service requests in the order in which they are received, in accordance with speed-of-answer standards. As a consequence, the Commission has found that the practice of permitting TRS users to reserve in advance a time at which a CA will handle a call is inconsistent with the nature of TRS and the functional equivalency mandate. Allowing TRS CAs to be reserved in advance for certain kinds of calls, such as video conferences, would raise the risk that service to other users would be degraded. The Commission seeks comment on this tentative conclusion.

Costs and Benefits. The Commission seeks comment on the costs and benefits of each of the proposed rule amendments and other possible changes discussed above, including: authorizing the integrated provision of VRS and other types of TRS with video conferences; specifying modified methods of VRS user validation and call detail recording for video conferences; addressing the use of multiple VRS CAs, service to multiple VRS users, and call takeover in video conferences; changes to the privacy screen rule; changes to the TRS confidentiality rules; prohibiting exclusivity agreements between TRS providers and IVCS providers, equipment manufacturers, and software suppliers; and preventing disincentives for and duplication of the provision of accommodations by video conference organizers and providers.

The Commission also seeks comment on the specific costs that providers of each type of TRS (as opposed to IVCS providers and other parties) would incur to provide service in video conferences on an integrated basis. For example, the Commission seeks estimates of the research and development costs incurred by TRS providers to develop, and engineering costs to build, test, maintain, and update, those aspects of integration solutions in which a TRS provider is involved. It also seeks estimates of the costs TRS providers would incur to adapt their TRS operations (for example, by adjusting call routing protocols) to the integrated provision of TRS in video conferences, in accordance with the proposed rules. To what extent could there be offsetting cost savings? The Commission also requests that interested parties identify which costs would be appropriately identified as start-up or one-time costs, and which costs would be recurring.

How is demand for VRS and other forms of TRS likely to change as a result of integrating TRS with video conferencing? What is the projected impact of such increased use on costs and revenues for TRS providers? To what extent could increases in TRS minutes of use due to integration of TRS with video conferencing off-set increased costs to provide such service?

TRS Fund Compensation. In general, the Commission anticipates that allowable costs incurred by TRS providers to provide service that is integrated with video conferencing will be recovered pursuant to the Commission's current processes. That is, such costs will be reported annually by providers along with other allowable costs and will be recovered pursuant to compensation formulas determined in the relevant compensation proceedings for each form of TRS. However, comment is sought on any changes in cost categories that may be needed to reflect the costs of integration with IVCS platforms. Will the provision of TRS on video conferencing platforms require changes to the forms on which TRS providers annually report cost and demand to the TRS Fund administrator? Are additional limits on allowable costs needed to protect against waste, fraud, and abuse in the TRS program?

At least one VRS provider indicates it is already able to provide VRS with one IVCS provider on an integrated basis. Absent a mandate, any additional costs incurred by VRS providers to provide such service, if significantly higher than costs reported to the TRS Fund administrator and reflected in applicable compensation formulas, would not be recoverable under the Commission's current guidelines for exogenous cost recovery. For example, one of the criteria for recovery of exogenous costs for VRS and IP CTS provides that the additional costs must result from new TRS service requirements or other causes beyond the provider's control. To encourage VRS providers to develop methods and technologies for providing VRS integrated with video conferencing, should the Commission provide a mechanism for additional cost recovery from the TRS Fund?

Amendment of the Commission's Rule on Multiple CAs

Section 64.604(c)(14) of the Commission's rules authorizes additional TRS Fund compensation for the involvement of multiple CAs in handling specified types of calls between two or more TRS users. The

Commission proposes to amend this provision to state generally that compensation may be paid for the use of multiple CAs to handle TRS calls between users of different types of TRS where more than one CA is needed to handle the call. Adopted in 2014, § 64.604(c)(14) of the Commission's rules currently states that compensation is authorized for the provision of multiple CAs to handle TRS calls between two or more users of captioned telephone service—CTS or IP CTS—and for calls between a captioned telephone service user and a user of TTY-based TRS or VRS.

The Commission adopted this provision in 2014 to codify certain existing practices brought to its attention, whereby compensation was paid for the use of multiple CAs to handle certain types of calls. Subsequently, the Commission amended the definition of *telecommunications relay services* to reflect the statutory definition of that term as amended by the CVAA. The amended definition provides that TRS enable functionally equivalent communication between an individual who is deaf, hard of hearing, deaf-blind, or who has a speech disability and one or more individuals. 47 CFR 64.601(a)(43); *see also* 47 U.S.C. 225(a)(3). Before enactment of the CVAA, TRS was defined as enabling functionally equivalent communication between an individual who has a hearing impairment or speech impairment and an individual who does not have a hearing impairment or speech impairment. 47 U.S.C. 225(a)(3) (2009). In proposing the 2014 amendment, the Commission explained that the revised definition would allow compensation from the TRS Fund for relay calls involving two or more persons using different forms of relay services, including calls whose handling may require more than one CA. However, in adopting the amended definition of TRS, the Commission did not modify the multiple-CA rule to reflect its stated intent regarding compensation for calls handled by multiple CAs. As a result, some categories of calls that qualify as TRS under the amended statutory definition and that may warrant multiple CAs, are not currently addressed by the multiple-CA rule. For example, the current rule does not address when the use of two CAs is appropriate for calls between users of IP Relay and other forms of TRS.

The Commission proposes to amend the multiple-CA rule to broaden its scope, to more fully reflect the Commission's stated intent in adopting the amended definition of TRS. Under the proposed amendment, the rule would state that compensation may be paid for more than one CA to handle, among other

categories, calls between users of different types of relay services where more than one CA is warranted. Comment is sought on this proposal.

Advancing Diversity, Equity, Inclusion, and Accessibility

The Commission, as part of its continuing effort to advance digital equity for all, including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invites comment on any equity-related considerations and benefits, if any, that may be associated with the proposals and issues discussed herein. The term *equity* is used here consistent with Executive Order 13985 as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. Specifically, the Commission seeks comment on how our proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility.

Initial Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act of 1980, as amended (RFA), 5 U.S.C. 603, 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 this document. 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 provided in this document.

Need for, and Objective of, Proposed Rules. The Commission proposes to amend its rules to improve the accessibility of IVCS, a form of ACS. First, the Commission proposes to amend part 14 of its rules, which governs accessibility of ACS. The Commission proposes to add performance objectives that specifically enable the accessibility of IVCS. The Commission proposes that such performance

objectives include the provision of speech-to-text (captioning) capabilities; text-to-speech capabilities; and enabling of ASL interpreting. The Commission seeks comment on whether additional amendments are needed to ensure that video conferencing is accessible. The Commission also seeks comment on whether technical standards are available or could be fashioned for use as safe harbors.

Second, the Commission proposes to amend part 64 of its rules, governing TRS, to provide that the Interstate TRS Fund can be used to support the integrated provision of relay service in video conferences—whether or not the video conferencing platform can be accessed via a dial-up telephone call. In addition, the Commission proposes to modify its rules to facilitate such integration, ensure the appropriate use of VRS with video conferencing, and prevent waste, fraud, and abuse.

Legal Basis. The authority for this proposed rulemaking is contained in sections 1, 2, 3, (4)(i), (4)(j), 225, and 716 of the Act, 47 U.S.C. 151, 152, 153, 154(i), 154(j), 225, 617.

*Small Entities Impacted***.** The proposed rules will affect the obligations of providers of IVCS and providers of TRS. These services can be included within the broad economic category of All Other Telecommunications.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements. The proposed changes for which comment is sought in this document, if adopted, would impose new or modified reporting, recordkeeping or other compliance obligations on certain small entities that provide IVCS or TRS.

The Commission's existing rules require that each manufacturer of equipment (including software) used to provide ACS and each provider of such services not otherwise exempt maintain, in the ordinary course of business and for a reasonable period, records documenting the efforts taken by such manufacturer or service provider to implement sections 255 and 716 of the Act, including: information about the manufacturer's or provider's efforts to consult with individuals with disabilities; descriptions of the

accessibility features of its products and services; and information about the compatibility of such products and services with peripheral devices or specialized customer premise equipment commonly used by individuals with disabilities to achieve access.

The Commission's existing rules require that an officer of each manufacturer of equipment (including software) used to provide ACS and an officer of each provider of such services submit to the Commission an annual certificate that records are being kept in accordance with the above recordkeeping requirements, unless such manufacturer or provider has been exempted from compliance with section 716 under applicable rules.

Because of the diverse manufacturers of equipment used to provide ACS and diverse providers of ACS that may be subject to section 716 of the Act, the multiple general and entity-specific factors used in determining, whether for a given manufacturer (or service provider) accessibility for a particular item of ACS equipment (or a particular service) is achievable, and the various provisions of section 716 of the Act and the proposed rules on when and to what extent accessibility must be incorporated into a given item of ACS equipment or service, it is difficult to estimate the costs of compliance for those small entities that may not be covered by a waiver, should the Commission choose to apply any such waivers. Accordingly, the Commission seeks comment on the costs of compliance with these proposed rules.

The proposed amendments to the Commission's rules governing TRS are designed to facilitate the use of TRS CAs in video conferences, ensure the appropriate use of TRS with video conferencing, and prevent waste, fraud, and abuse. These modifications would only apply to the extent that users of a specific small entity TRS provider participate in video conference calls. Otherwise, the TRS compliance requirements would remain unchanged.

Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives

(among others): the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; the use of performance rather than design standards; and an exemption from coverage of the rule, or any part thereof, for such small entities.

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

Federal Rules Which Duplicate, Overlap, or Conflict With, the Commission's Proposals. None.

Initial Paperwork Reduction Act of 1995 Analysis

This document may contain new or modified information collection(s) subject to the Paperwork Reduction Act of 1995, Pub. L. 104-13 (PRA). If the Commission adopts any new or modified information collection requirements, they will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA, 44 U.S.C. 3507(d). OMB, the general public, and other federal agencies are invited to comment on the new or modified information collection requirements contained in this proceeding. In addition, pursuant to the Small Business Paperwork Relief Act of 2002,

Pub. L. 107-198, the Commission seeks specific comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees. 44 U.S.C. 3506(c)(4).

List of Subjects

47 CFR Part 14

Communications, Individuals with disabilities, Reporting and recordkeeping requirements.

47 CFR Part 64

Individuals with disabilities, Reporting and recordkeeping requirements, Telecommunications.

Federal Communications Commission.

Marlene Dortch,
Secretary,
Office of the Secretary.

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 14 and 64 as follows:

PART 14 – ACCESS TO ADVANCED COMMUNICATIONS SERVICES AND EQUIPMENT BY PEOPLE WITH DISABILITIES

1. The authority citation for part 14 continues to read as follows:

Authority: 47 U.S.C. 151–154, 255, 303, 403, 503, 617, 618, 619 unless otherwise noted.

2. Amend § 14.21 by revising paragraphs (b)(1)(ix) and (b)(2)(iv) and adding paragraph (b)(4) to read as follows:

§ 14.21 Performance Objectives.

* * * * *

(b) * * *

(1) * * *

(ix) *Operable without speech*. Provide at least one mode that does not require user speech. For interoperable video conferencing services, provide at least text-to-speech capability.

* * * * *

(2) * * *

(iv) *Availability of auditory information.* Provide auditory information through at least one mode in visual form and, where appropriate, in tactile form. For interoperable video conferencing services, provide at least one mode with captions that are accurate and synchronous. The accuracy and latency of such captions should be comparable to that provided on TRS Fund-supported captioned telephone services.

* * * * *

(4) *Interoperable Video Conferencing Service.*

(i) *Sign language interpretation.* Interoperable video conferencing services shall enable the use of sign language interpretation, including the transmission of user requests for sign language interpretation to providers of video relay service and other entities and the provision of sufficient video quality to support sign language communication.

(ii) *User interface.* Interoperable video conferencing services shall provide user interface control functions that permit users to adjust the display of captions, speakers and signers, and other features for which user interface control is necessary for accessibility.

* * * * *

PART 64 - MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

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

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

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

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

5. Amend § 64.601 by:

a. Redesignating paragraphs (a)(21) through (24) as paragraphs (a)(22) through (25), and adding new paragraph (a)(21);

b. Redesignating paragraphs (a)(25) and (26) as paragraphs (a)(27) and (28), and adding new paragraph (a)(26);

c. Redesignating paragraphs (a)(27) through (50) as paragraphs (a)(30) through (53), and adding new paragraph (29); and

d. Redesignating paragraphs (a)(51) through (55) as paragraphs (a)(55) through (59), and adding new paragraph (a)(54).

The additions read as follows:

§ 64.601 Definitions and provisions of general applicability.

(a) * * *

(21) *Integrated VRS.* The provision of VRS in a video conference whereby the CA is included as a participant in the video conference and communication between the CA and the participants takes place on the video conferencing platform rather than through a separate connection.

* * * * *

(26) *Interoperable video conference service (IVCS).* Has the meaning defined in part 14 of this chapter.

* * * * *

(29) *Multi-party video conference*. A video conference call with three or more participants, excluding VRS CAs and any other participant providing an accommodation for a participant.

* * * * *

(54) *Video conference*. A session of IVCS involving two-way real-time communication between two or more IVCS users.

* * * * *

6. Amend § 64.604 by:

a. Revising paragraphs (a)(2)(i) and (a)(6);

b. Adding paragraph (c)(5)(iii)(D)(*2*)(*xi*);

c. Revising paragraphs (c)(5)(iii)(E)(*2*) and (c)(14);

d. Adding paragraph (c)(15); and

e. Revising paragraph (d).

The revisions and additions read as follows:

§ 64.604 Mandatory minimum standards.

* * * * *

(a) * * *

(2) * * *

(i) Except as authorized by section 705 of the Communications Act, 47 U.S.C. 605, TRS providers and CAs are prohibited from disclosing the content of any relayed conversation (and any non-relayed content communicated in a video conference) regardless of content, and with a limited exception for STS CAs, from keeping records of the content of any conversation (and any non-relayed content communicated in a video conference) beyond the duration of a call, even if to do so would be inconsistent with state or local law. STS CAs may retain information from a particular call in order to facilitate the completion of consecutive calls, at the request of the user. The caller may request the STS CA to retain such information, or the CA may ask the caller if he wants the CA to repeat the same information during subsequent calls. The CA may retain the information only for as long as it takes to complete the subsequent calls.

* * * * *

(6) *Visual privacy screens/idle calls.*

(i) Except as provided in paragraph (a)(6)(ii)(A) of this section, a VRS CA may not enable a visual privacy screen or similar feature during a VRS call. Except as provided in paragraph (a)(6)(ii)(B) of this section, a VRS CA must disconnect a VRS call if the caller or the called party to a VRS call enables a privacy screen or similar feature for more than five minutes or is otherwise unresponsive or unengaged for more than five minutes, unless the call is a 9-1-1 emergency call or the caller or called party is legitimately placed on hold and is present and waiting for active communications to commence. Prior to disconnecting the call, the CA must announce to both parties the intent to terminate the call and may reverse the decision to disconnect if one of the parties indicates continued engagement with the call.

(ii) A VRS CA providing integrated VRS in a multi-party video conference:

(A) May temporarily turn off the CA's video camera when engaged in team interpreting, if the other CA is actively providing ASL interpretation;

(B) May stay connected to the video conference if the VRS user who requested service has turned off the user's camera, as long as that user stays connected to the video conference; and

(C) If five minutes elapse in which no party is responsive or engaged in conversation, the CA shall announce that VRS will be terminated and shall disconnect from the video conference.

* * * * *

(c) * * *

(5) * * *

(iii) * * *

(D) * * *

(*2*) * * *

(*xi*) For the provision of integrated VRS in a video conference, in lieu of the information specified in paragraphs (v) and (vi) of this section, a VRS provider may submit information, in accordance with instructions issued by the administrator, that sufficiently identifies the VRS user requesting service and the video conference in which service was provided.

* * * * *

(E) * * *

(*2*) TRS minutes of use for purposes of cost recovery from the TRS Fund are defined as the minutes of use for completed interstate or Internet-based TRS calls placed through the TRS center beginning after call set-up and concluding after the last message call unit. For video conferences, a VRS provider's TRS minutes of use begin when a VRS CA is connected to a video conference and two or more participants are actively present, and ends when the CA disconnects from the video conference or when fewer than two participants are actively present, whichever is earlier.

* * * * *

(14) *TRS calls requiring the use of multiple CAs*. TRS Fund compensation may be paid for more than one CA to handle the following types of calls:

(i) VCO-to-VCO calls between multiple captioned telephone relay service users, multiple IP CTS users, or captioned telephone relay service users and IP CTS users;

(ii) Calls between users of different types of relay services for which more than one CA is warranted; and

(iii) Video conferences where more than one CA is warranted.

(15) *Exclusivity Agreements*. A TRS provider may not enter into an agreement or any other arrangement with an IVCS provider if such agreement or arrangement would give the TRS provider exclusive access among TRS providers to the IVCS provider's facilities or such agreement or arrangement would give the IVCS provider exclusive access among IVCS providers to the TRS provider's service via a video connection.

(d) The applicable requirements of § 9.14 of this chapter and §§ 64.611, 64.615, 64.621, 64.631, 64.632, 64.644, 64.5105, 64.5107, 64.5108, 64.5109, and 64.5110 are to be considered mandatory minimum standards.

7. Amend § 64.615 by revising paragraph (a)(1)(i) to read as follows:

§ 64.615 TRS User Registration Database and administrator.

(a) * * *

(1) * * *

(i) Validation shall occur during the call setup process, prior to the placement of the call, except that validation of the provision of integrated VRS in a video conference shall occur prior to the connection of a VRS CA to the video conference.

* * * * *

8. Add § 64.644 to subpart F to read as follows:

§ 64.644 Provision of Integrated VRS in Video Conferences.

(a) A VRS provider may provide integrated VRS in a video conference upon request by a registered VRS user (or by a person authorized by a registered enterprise VRS user).

(b) A VRS provider providing integrated VRS in a video conference shall:

(i) Collect from the party requesting service sufficient information to confirm the requesting party's registration for VRS pursuant to the applicable requirements of §§ 64.611 and 64.615; and

(ii) Terminate the CA's connection to the video conference no later than when the requesting VRS user disconnects from the video conference.

(c) A VRS provider may assign more than one CA to participate in a multi-party video conference.

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