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

In the Matter of	)	
	)	
Access to Video Conferencing	)	CG Docket No. 23-161
	)	
Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010	)	CG Docket No. 10-213
	)	
Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities	)	CG Docket No. 03-123
	)	
Petition of Sorenson Communications, LLC for a Limited Waiver of the Privacy Screen Rule	)	

REPORT AND ORDER, NOTICE OF PROPOSED RULEMAKING, AND ORDER

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By the Commission: Chairwoman Rosenworcel and Commissioner Starks issuing separate statements.

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I. INTRODUCTION

1. Prior to the outbreak of COVID-19 in early 2020, video conferencing represented an important but still nascent mode of communication. That is not the case today. As the world adapted to a historic pandemic and the associated quarantine measures, video conferencing took on a central and critical role in the day-to-day functioning of American society.[1] Further, this change in how we communicate has outlasted the pandemic quarantine measures—employers, schools, government agencies, doctors, other organizations, and the general public now rely on video conferencing as an essential communications tool. It is difficult to overstate how thoroughly video conferencing has become embedded in the fabric of post-pandemic society.[2]

2. Today, video conferencing is routinely used by millions of people for workplace conferences, classes, and conversations with family and friends. Yet, for many people with disabilities, making effective use of video conferencing continues to be a challenge. Reported problems include lack of—or inferior—captioning; ineffective display of sign language interpreters; inability of blind or low-vision users to find and use volume controls; and insufficient user control of accessibility tools. Further, there is no easy way to use telecommunications relay services (TRS) on video conferencing platforms.[3] Currently, for a video conference participant to use video relay service (VRS),[4] a communications

[1] *See, e.g.*, American Council of the Blind (ACB), Comments, CG Docket No. 10-213 and GN Docket No. 21-140, at 1 (filed June 21, 2022) (ACB 2022 IVCS Refresh Comments) (stating that, during the pandemic, "technology and communications services have played an increasingly integral role in all aspects of our lives. . . . [T]he ability to access and communicate using video services have become ubiquitous and essential in the United States").

[2] *See, e.g.*, Sorenson Communications, LLC (Sorenson), Reply Comments, CG Docket No. 10-213 and GN Docket No. 21-140, at 1 (filed July 18, 2022) (Sorenson 2022 IVCS Refresh Reply Comments) ("[F]ull access to healthcare must now include access to telehealth; full participation in work life and in our communities now means regular video meetings.").

[3] Section 225 of the Communications Act of 1934, as amended (the Act), requires the Federal Communications Commission (FCC or Commission) to ensure the availability, to individuals who are deaf, hard of hearing, deafblind, or have a speech disability, of TRS that are functionally equivalent to voice communication services used by persons without hearing and speech disabilities "to the extent possible and in the most efficient manner." 47 U.S.C. § 225(a)(3), (b)(1). These services are supported by the Interstate Telecommunications Relay Services Fund (TRS Fund), which is collected from providers of telecommunications service, interconnected Voice over Internet Protocol (VoIP) service, and non-interconnected VoIP service, and is administered by a Commission contractor. *See* 47 CFR § 64.604(c)(5).

[4] VRS is a form of TRS that allows people with hearing or speech disabilities who use sign language to communicate with voice telephone users through video equipment. The video link allows a communications assistant to view and interpret the party's signed conversation back and forth with a voice caller. 47 CFR § 64.601(a)(51).

assistant (CA) must dial in separately with a voice-only connection—an unsatisfactory arrangement, even when a dial-in connection is available.[5]

3. In this item, we take several steps to ensure that video conferencing is accessible to all. In the *Report and Order*, we resolve a long-standing legal question that has caused uncertainty for industry and hindered the use of video conferencing by people with disabilities. Under section 716 of the Act, as amended by the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA),[6] "interoperable video conferencing service" (IVCS) and equipment used for IVCS must be accessible to and usable by people with disabilities, unless that requirement is not achievable.[7] The Act defines "interoperable video conferencing service" as "a service that provides real-time video communications, including audio, to enable users to share information of the user's choosing."[8] Revisiting the Commission's previously stated views[9] in light of changed circumstances, we find no persuasive reason to modify or limit the scope of this statutory definition, which includes services provided on a variety of commonly used video conferencing platforms. We conclude that section 716's accessibility requirements and Part 14 of our rules[10] apply to all services and equipment included in the statutory definition of IVCS.

4. In the *Notice of Proposed Rulemaking,* we propose to amend our Part 14 rules to define more specifically some of the steps needed to make interoperable video conferencing service accessible to people with disabilities. In addition, we propose to amend our TRS rules to facilitate the use of VRS in video conferences, and we seek comment on whether analogous changes are needed with respect to other forms of TRS. Finally, we propose a rule amendment to clarify when multiple CAs may be assigned to TRS calls (whether video conferences or not) that involve users of different forms of TRS.

5. In the *Order*, we grant TRS providers a limited, conditional waiver of the VRS privacy screen rule,[11] which restricts VRS users' ability to turn off their video cameras when not actively participating in a video conference.[12]

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[5] *See* Recommendation of the Federal Communications Commission (FCC) Disability Advisory Committee (DAC) on Telecommunications Relay Service (TRS) Use on Video Conferencing Platforms, at 2-3 (Feb. 24, 2022), https://www.fcc.gov/file/22912/download (DAC Video Conferencing Report). This is beginning to change. *See* Sorenson, Integrated Sorenson Interpreting for Zoom, https://sorenson.com/solutions/video-relay-services/sorenson-for-zoom/ (last visited Apr. 24, 2023) (*Sorenson-for-Zoom*).

[6] Pub. L. No. 111-260, 124 Stat. 2751 (2010).

[7] 47 U.S.C. § 617(a)(1), (b)(1); *id*. § 153(1).

[8] *Id*. § 153(27).

[9] *See Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010; Amendments to the Commission's Rules Implementing Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996; Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision,* CG Docket No. 10-213, WT Docket No. 96-198, CG Docket No. 10-145, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14557, 14576, para. 47 (2011) (*2011 ACS Order* or *2011 ACS Further Notice*). As explained in more detail below, in the *2011 ACS Order* the Commission assumed that the word "interoperable" needed to be defined independently of the term "interoperable video conferencing service."

[10] *See* 47 CFR Pt. 14.

[11] *Id*. § 64.604(a)(6).

[12] *See* Petition of Sorenson Communications, LLC for a Limited Waiver of the Privacy Screen Rule for Piloting VRS Integration with Video Conferencing Services, CG Docket Nos. 03-123 and 10-51 (filed Dec. 19, 2022), https://www.fcc.gov/ecfs/document/12190888126091/1 (Sorenson Petition).

II. BACKGROUND

A. Growth of Video Conferencing

6. 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.[13] In early 2020, after governments, businesses, and schools adopted social distancing requirements,[14] organizations, families, and individuals turned to video conferencing as a work-around.[15] Use of video conferencing increased exponentially,[16] becoming "a significant part of the technology solution replacing in-person meetings, conference calls, and traditional classroom instruction."[17]

7. 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.[18] As the Consumer Technology Association (CTA) observes, the pandemic "amplified and accelerated the reality that much of Americans' lives take place online using an increasing variety of connected devices."[19] In CTA's 2021 member survey, for example, roughly 80% of respondents strongly agreed that their employees benefitted from a hybrid work environment.[20] In a 2022 study, the Pew Research Center found that 78% of remote workers use video or online conferencing

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[13] *See, e.g.,* Rudly Raphael, *Zoom into the Future of Videoconferencing*, Greenbook.org (Nov. 6, 2022), https://www.greenbook.org/mr/executive-insights/zoom-into-the-future-of-video-conferencing/; Max Kalmykov, *The Web Conferencing Boom: Covid-19's Effect on the Video Call Market*, Dataart.com (July 16, 2020), https://www.dataart.com/blog/the-web-conferencing-boom-covid-19-s-effect-on-the-video-call-market; Roger Dooley, *How Zoom Conquered Video Conferencing*, Forbes (Sept. 30, 2020), https://www.forbes.com/sites/rogerdooley/2020/09/30/how-zoom-conquered-video-conferencing/?sh=1af02f25a977.

[14] *See, e.g.*, Hristina Byrnes & Grant Suneson, *Coronavirus Update: Here's Every State's Rules for Staying Open and Social Distancing*, FDL Reporter (Jul.26, 2020), https://www.fdlreporter.com/story/money/2020/07/26/coronavirus-everystates-rules-for-staying-open-and-social-distancing/112351868/ (providing a state-by-state breakdown of social distancing requirements, face covering mandates, and capacity limitations on businesses); Geoff Whitmore, *Update on New York Travel Ban*, Forbes.com (Aug. 12, 2020), https://www.forbes.com/sites/geoffwhitmore/2020/08/12/update-on-new-yorks-extensive-travelrestrictions/#64308ff530df (discussing quarantine requirements for domestic travelers to New York, New Jersey, and Connecticut); Elinor Aspegren, *Back to school? Despite CDC recommendations, most major schools going online as COVID-10 cases spike*, USA Today (July 23, 2020), https://www.usatoday.com/story/news/education/2020/07/23/covid-back-toschool-online-fall-semester-2020-reopening/5472142002/.

[15] Recommendation of the FCC Disability Advisory Committee Prepared by the Pandemic Communication Access Working Group, "Concerns and Lessons Learned regarding Communication Access for People with Disabilities During the Pandemic," at 4 (adopted Sept. 9, 2021) (DAC Pandemic Communications Access Report).

[16] *Id*. For example, between March 14-21, 2020, Google Play and Apple's iOS operating system recorded 62 million downloads of video conferencing apps, an all-time high. *See* Lexi Sydow, *Video Conferencing Apps Surge from Coronavirus Impact* (March 30, 2020), https://www.data.ai/en/insights/market-data/video-conferencing-apps-surge-coronavirus/. Additionally, use of web and video conferencing programs reportedly increased 500% in the first two months of the COVID-19 pandemic. *See* Mandi Sadler, Covid-19 Software Industry Statistics (April 9, 2020) https://www.trustradius.com/vendor-blog/covid-19-software-industry-data-and-statistics.

[17] DAC Pandemic Communications Access Report at 4.

[18] *See* Eric Griffith, *Hate Being on Live Calls? Sorry, They're Here to Stay* (Aug. 29, 2022), https://www.pcmag.com/news/hate-being-on-live-video-calls-sorry-theyre-here-to-stay.

[19] Consumer Technology Association (CTA), Comments, CG Docket No. 10-213 and GN Docket No. 21-140, at 3 (filed June 21, 2022) (CTA 2022 IVCS Refresh Comments).

[20] Consumer Technology Association Member Survey, *Future of Work: 2021* at 8 (Oct. 2021), https://shop.cta.tech/products/future-of-work-2021-cta-member-survey.

services at least "sometimes," with more than half using such services "often."[21] CTA also notes that "video conferencing has been a key component of the move to telehealth," which it calls a "great equalizer in a healthcare system where social and economic disparities continue to affect patient care."[22] To help students and teachers participate in the large-scale shift to remote learning, the Commission established the $7.171 billion Emergency Connectivity Fund Program, which helps schools and libraries purchase advanced telecommunications equipment and services.[23] For millions of Americans, video conferencing has become a mainstay of their business and personal lives.

B. Accessibility Concerns

8. With the growing use of video conferencing has come heightened concern about accessibility.[24] According to the Accessibility Advocacy and Research Organizations (AARO), a broad-based coalition of disability advocacy and research groups:

> Once the pandemic forced a shift to remote working, many of the 13% of American adults who have hearing difficulties found themselves cut off from colleagues during calls on Zoom, Microsoft Teams, and other virtual platforms. Faces on the screen are often too small for lipreading, and a lack of captions can make meaningful interaction impossible.[25]

[21] Ruth Igielnik, *As telework continues for many U.S. workers, no sign of widespread 'Zoom fatigue'* (May 4, 2022), https://www.pewresearch.org/fact-tank/2022/05/04/as-telework-continues-for-many-u-s-workers-no-sign-of-widespread-zoom-fatigue/.

[22] In the mental health field, shortly after the COVID-19 outbreak, the American Psychological Association reported that 92% of its clinicians had pivoted to providing at least some remote services, either via the phone or on video conferencing services, and 76% provided services entirely by remote means. American Psychological Association, *Psychologists embrace telehealth to prevent the spread of COVID-19* (June 5, 2020), https://www.apaservices.org/practice/legal/technology/psychologists-embrace-telehealth. In 2022, 31% of clinicians continued to provide remote-only services while only 11% had returned to entirely in-person services. More than 95% of clinicians reported that they intended to continue providing telehealth services even after the pandemic. American Psychological Association, *Psychologists struggle to meet demand amid mental health crisis, 2022 COVID-19 Practitioner Impact Survey* (Nov. 2022), https://www.apa.org/pubs/reports/practitioner/2022-covid-psychologist-workload.

[23] *See* FCC Emergency Connectivity Fund, https://www.fcc.gov/emergency-connectivity-fund (last visited March 2, 2023).

[24] *See* AARO, Comments, GN Docket No. 21-140, at 4 (filed June 7, 2021) (AARO 2021 CVAA Refresh Comments); CTA 2022 IVCS Refresh Comments at 4; *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, CG Docket No. 10-213, Biennial Report to Congress as Required by the Twenty-First Century Communications and Video Accessibility Act of 2010 (Oct. 11, 2022), https://docs.fcc.gov/public/attachments/DA-22-1075A1.pdf (*2022 CVAA Report to Congress*).

[25] Telecommunications for the Deaf and Hard of Hearing, Inc., et al., Comments on Public Notice, CG Docket No. 10-213, at 8-9 (filed Apr. 4, 2022) (AARO 2022 CVAA Biennial Report Comments). According to the National Institutes of Health, 30 million people aged twelve years or older in the United States have hearing loss in both ears, and 20 million people have voice disorders. *See* National Institute on Deafness and Other Communication Disorders, Quick Statistics About Hearing (March 25, 2021), https://www.nidcd.nih.gov/health/statistics/quick-statistics-hearing; Sofia Anastasiadou and Yasir Al Khalili, *Hearing Loss* (July 21, 2022), https://www.ncbi.nlm.nih.gov/books/NBK542323/; Yasmin Naqvi and Vikas Gupta, *Functional voice disorders* (Oct. 24, 2022), https://www.ncbi.nlm.nih.gov/books/NBK563182/.

Small screens also 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.[26] When automatic captions are provided on video conference platforms, the quality and timeliness of the transcription varies widely.[27] In a 2021 survey of 330 people with vision disabilities, approximately 57% of respondents found telehealth to be inaccessible in some way.[28] Further, users who are blind or have limited vision describe struggles to find and toggle volume controls.[29]

9. 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.[30] Some services also offer keyboard accessibility features, high-contrast visual elements, customizable notifications, verbosity controls, and other accessibility innovations.[31]

10. 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. In recommending Commission action to facilitate TRS access on such platforms, the committee stated:

> [S]ome video conferencing platforms incorporate live closed captioning using automatic speech recognition (ASR). However, these solutions are not available for all platforms or on all video conferences for platforms that do provide them. . . . When ASR-based captions are available, they may be of insufficient quality. . . . Some platforms do not allow users to customize caption size, color, opacity, and other critical settings to ensure readability. And some platforms lack sufficient user control to ensure that interpreters and signers are properly displayed and can be properly pinned on users' displays.[32]

11. 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.[33] For example, a patient who is deaf may not be able to obtain healthcare because the doctor's telehealth conferencing platform

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[26] *See* Mark Ray, *Why Remote Work Can Be Hard For Hard-Of-Hearing People*, Forbes (Mar. 29, 2022), https://www.forbes.com/sites/nextavenue/2021/09/02/why-remote-work-can-be-hard-for-hard-of-hearing-people/?sh=76a3d4c46d71.

[27] AARO 2022 CVAA Biennial Report Comments at 9-10.

[28] Rhoads, C.R., Bleach, K., Chatfield, S., & Camarillo, P.M., *The Journey Forward: Impact of COVID-19 on Blind, Low Vision, and Deafblind U.S. Adults* (2022), https://www.afb.org/research-and-initiatives/flatten-inaccessibility-survey/journey-forward.

[29] American Foundation for the Blind (AFB), Public Notice Comments, CG Docket No. 10-213, at 3 (filed Apr. 4, 2022) (AFB 2022 CVAA Biennial Report Comments).

[30] *2022 CVAA Report to Congress* at para. 22; *see also* CTA 2022 IVCS Refresh Comments at 7-8; CTIA, Comments, CG Docket No. 10-213 and GN Docket No. 21-140, at 2 (filed June 21, 2022) (CTIA 2022 IVCS Refresh Comments).

[31] *2022 CVAA Report to Congress* at para. 24.

[32] DAC Video Conferencing Report at 2-3.

[33] Accessibility Advocacy and Research Organizations, Reply Comments, CG Docket No. 10-213 and GN Docket No. 21-140, at 4 (filed July 18, 2022) (AARO 2022 IVCS Refresh Reply Comments at 4).

does not enable an effective connection to a sign language interpreter or VRS.[34] 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.[35] In these and other scenarios, a person with a disability often has no opportunity to request a different, accessible video conferencing system.

C. Application of the CVAA to Video Conferencing

12. Under the CVAA, enacted in 2010, 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.[36] Service providers and manufacturers may comply with section 716 of the Act either by building accessibility features into their services and equipment[37] 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.[38] 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.[39]

13. The Act defines "advanced communications services" as:

> (A) interconnected VoIP service; (B) non-interconnected VoIP service; (C) electronic messaging service; (D) interoperable video conferencing service; and (E) 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.[40]

"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.[41]

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[34] *2022 CVAA Report to Congress* at para. 27.

[35] *See* Letter from Everette Bacon, National Federation for the Blind, to Marlene H. Dortch, FCC, CG Docket Nos. 10-213 and 05-231, MB Docket No. 12-108 (filed Aug. 19, 2022).

[36] 47 U.S.C. § 617(a)(1), (b)(1); 47 CFR § 14.10(b) (defining "achievable").

[37] 47 U.S.C. § 617(a)(2)(A), (b)(2)(A).

[38] *Id*. § 617(a)(2)(B), (b)(2)(B). By contrast, section 255 of the Act, which requires that providers of telecommunications service and manufacturers of telecommunications and customer premises equipment ensure that their services and equipment are accessible to and usable by people with disabilities, does not include a provision allowing service providers and equipment manufacturers to choose to meet their obligations by using third-party applications or equipment. *Id*. § 255.

[39] *Id*. § 617(c). ACS providers and equipment manufacturers are also subject to recordkeeping and reporting requirements established pursuant to section 717(a) of the Act. *Id*. § 618(a); *2011 ACS Order,* 26 FCC Rcd at 14650-55, paras. 219-30. For example, providers and manufacturers must maintain records of their efforts to ensure that their services and products are accessible (47 CFR § 14.31(a)), and must be prepared to demonstrate due diligence in exploring accessibility and achievability in response to complaints (*id*. § 14.36(a)).

[40] 47 U.S.C. § 153(1). Subparagraph (E) was added by the Martha Wright-Reed Just and Reasonable Communications Act of 2022, Pub. L. No. 117-338, 136 Stat. 6156 (2022). The Commission is addressing this fifth subcategory in a separate proceeding. *See Incarcerated People's Communications Services; Implementation of the Martha Wright-Reed Act; Rates for Interstate Inmate Calling Services*, WC Dockets Nos. 23-62 and 12-375, Notice of Proposed Rulemaking and Order, FCC 23-19 (Mar. 17, 2023).

[41] 47 U.S.C. § 153(27).

14. In adopting rules to implement section 716, the Commission incorporated without change the statutory definitions of ACS and the four then-existing types of ACS, including "interoperable video conferencing service."[42] However, in that 2011 rulemaking a question was raised as to what Congress meant by including the word "interoperable" as part of the term "interoperable video conferencing service."[43] Noting that the word "interoperable" had been inserted late in the CVAA drafting process, without explanation, and agreeing with some commenters that the word "cannot be read out of the statute,"[44] the Commission found that the record before it was insufficient to decide the correct interpretation, and sought further comment on the issue.[45]

15. Based on the record at that time, the Commission specifically invited comment on the following three possible definitions of the word "interoperable" as used in this context:

- Able to function inter-platform, inter-network, and inter-provider;
- Having published or otherwise agreed-upon standards that allow for manufacturers or service providers to develop products or services that operate with other equipment or services operating pursuant to the standards; or
- Able to connect users among different video conferencing services, including VRS.[46]

16. In response to the *2011 ACS Further Notice*, commenters did not reach consensus on any of the three suggested alternatives.[47] Some commenters argued that the first of the three suggested definitions was too narrow,[48] while others contended that it was the only appropriate alternative.[49] The American Council of the Blind (ACB) and the American Foundation for the Blind (AFB) asserted that the term "'interoperable' should be read to refer to two-way, non-asynchronous video communication."[50]

17. Recently, the Commission refreshed the record on this matter. First, in April 2021, the Consumer and Governmental Affairs, Media, and Wireless Telecommunications Bureaus issued a joint Public Notice seeking comment generally on whether any updates were needed to the Commission's rules implementing the CVAA and inviting stakeholders to "provide input on aspects of the Commission's CVAA implementation that are working well, on specific areas in which commenters believe improvements are needed, and on requirements that may not be serving their intended purpose or have

[42] 47 CFR § 14.10(m).

[43] *2011 ACS Order*, 26 FCC Rcd at 14576, para. 46. As discussed below, the legislative history is silent as to why the word "interoperable" was added. Despite the late addition of the word, the definition of IVCS remained unchanged. *See infra* paras. 32-33.

[44] *2011 ACS Order*, 26 FCC Rcd at 14576, para. 47.

[45] *See 2011 ACS Further Notice*, 26 FCC Rcd at 14684-87, paras. 301-05.

[46] *Id*. at 14686, para. 303.

[47] Commenters on the relevant issues raised in the *2011 ACS Further Notice* are listed in Appendix A, and the comments are cited herein as "[Name] 2011 IVCS Comments" or "[Name] 2011 IVCS Reply Comments."

[48] Rehabilitation Engineering Research Center on Telecommunications Access (RERC-TA) 2011 IVCS Comments at 4-5 (stating that it is virtually impossible for any service to be "inter-provider, inter-network, and inter-platform"); Consumer Groups and RERC-TA 2011 IVCS Reply Comments at 8-9 (stating that "video teleconferencing systems . . . are not meant to interoperate directly with each other") (emphasis in original).

[49] Microsoft Corporation 2011 IVCS Comments at 5-8; Voice on the Net Coalition 2011 IVCS Comments at 4 ("The term 'interoperable' . . . should be defined as 'able to engage across a wide range of platforms, network, and providers.'"); Consumer Electronics Association 2011 IVCS Comments at 12 (urging the Commission to define "interoperable" as "the ability to operate among different platforms, networks, and providers without special effort or modification by the end user").

[50] ACB and AFB 2011 IVCS Reply Comments at 5.

been overtaken by new technologies."[51] In response, AARO commented that "the communications accessibility problem most cited by members of the Advocacy Organizations since the beginning of the COVID-19 pandemic has been the inaccessibility of modern IP-based multimodal platforms that offer an array of video, audio, and text communications functionality."[52] Some of the comments responding to the *2021 CVAA Refresh Public Notice* specifically addressed the interpretation of the term "interoperable video conferencing service." AARO, for example, urged the Commission to "simply clarify that the statutory definition of 'interoperable video conferencing service,' as a 'service that uses real-time video communications, including audio, to enable users to share information of the user's choosing,' is an exhaustive articulation of what Congress intended to be covered."[53]

18. Next, on April 27, 2022, the Commission's Consumer and Governmental Affairs Bureau (CGB or Bureau) released a Public Notice specifically inviting additional comment on the questions posed in the *2011 ACS Further Notice* as to the meaning of "interoperable video conferencing service."[54] The Bureau also "invite[d] commenters to submit additional relevant information about what types of services are currently available in the video conferencing marketplace, the kinds of interoperability they currently offer, and how such developments may assist in reaching an interpretation of 'interoperable video conferencing service' that is consistent with the intent of Congress in enacting the CVAA."[55] The Commission also sought comment on how consumers access video conferencing services, whether various components of such services are accessible and usable, and "any other developments that the Commission should consider in resolving this issue."[56]

19. Eight entities filed comments in response to the 2022 *IVCS Refresh Public Notice*; seven filed reply comments.[57] Commenters provided substantial information about how video conferencing

[51] *Consumer and Governmental Affairs, Media, And Wireless Telecommunications Bureaus Seek Update On Commission's Fulfillment of The Twenty-First Century Communications and Video Accessibility Act*, GN Docket No. 21-140, Public Notice, 36 FCC Rcd 7108, 7109 (2021) (*2021 CVAA Refresh Public Notice*). Commenters on the relevant issues raised in the *2021 CVAA Refresh Public Notice* are listed in Appendix A, and the comments are cited herein as "[Name] 2021 CVAA Refresh Comments" or "[Name] 2021 CVAA Refresh Reply Comments."

[52] *See* AARO 2021 CVAA Refresh Comments at 4. AARO includes Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), American Association of the DeafBlind (AADB), American Deafness and Rehabilitation Association (ADARA), Association of Late-Deafened Adults (ALDA), California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH), Cerebral Palsy and Deaf Organization (CPADO), Communications Service for the Deaf (CSD), Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD), Cuesign, Inc., Deaf Seniors of America (DSA), Hearing Loss Association of America (HLAA), HEARD, National Association of the Deaf (NAD), National Black Deaf Advocates (NBD), National Cued Speech Association (NCSA), National Hispanic Latino Association of the Deaf (NHLAD), Northern Virginia Resource Center for Deaf and Hard of Hearing Persons (NVRC), Registry of Interpreters for the Deaf (RID), Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC), Rehabilitation Engineering Research Center on Universal Interface & Information Technology Access (IT-RERC), Rehabilitation Engineering Research Center for Wireless Inclusive Technologies, Georgia Institute of Technology (Wireless RERC), and RIT/NTID Center on Access Technology (CAT).

[53] AARO 2021 CVAA Refresh Comments at 13.

[54] *Consumer and Governmental Affairs Bureau Seeks to Refresh* the *Record on Interoperable Video Conferencing Services*, CG Docket No. 10-213, Public Notice, DA 22-463, at 3 (CGB Apr. 27, 2022) (*2022 IVCS Refresh Public Notice*).

[55] *Id*. at 5.

[56] *Id*.

[57] Commenters responding to the 2022 IVCS *Refresh Public Notice* are listed in Appendix A, and the comments are cited herein as "[Name] 2022 IVCS Refresh Comments" or "[Name] 2022 IVCS Refresh Reply Comments."

services are used today, including the extent to which such services are accessible and usable.[58] On the meaning of "interoperable video conferencing service," AARO, ACB, and AFB commented that standard principles of statutory interpretation compel application of the statutory definition without modification.[59] The groups also urged the Commission to mandate more specific guidelines on implementing accessibility of these services. CTIA and CTA countered that the word "interoperable" limits the scope of covered services. CTIA proposed an interpretation that covered services are those that are able to function "inter-platform and inter-network."[60] Pointing to dictionary definitions, CTA argued that the Commission should define "interoperable" as "the ability to operate among different platforms, networks and providers without special effort or modification by the end user."[61] Under CTIA's definition, a video conferencing service is "inter-platform" if users may access "the video conferencing service on *multiple* software platforms and operating systems, such as Google Android, Apple iOS, and Microsoft Windows."[62] A video conferencing service is "inter-network" if a user may "access a video conferencing service via the internet and on data networks, such as through a broadband connection like 4G LTE or 5G."[63] In reply comments, ACB and AFB state that video conferencing services that are provided on only one operating system, such as Apple's Facetime application, might not meet this definition of "inter-platform" and so "would likely not meet this narrow definition of IVCS."[64]

20. *Performance Objectives*. In response to the *2022 IVCS Refresh Public Notice*, commenters also disagree about whether additional performance objectives are necessary for IVCS.[65] CTA and CTIA argue that the existing performance objectives have produced accessible, innovative advanced communications services and equipment.[66] AARO urges adoption of the following performance objectives specifically for IVCS:

- Built-in closed captioning functionality;

[58] *See, e.g.,* AARO 2022 IVCS Refresh Comments at 1-2 ("IVCS now dominates communications in nearly all social, business, education, and healthcare settings."); AFB 2022 IVCS Refresh Comments at 1 ("Accessibility of video communications has been an important factor in equal participation and inclusion of people who are blind or have low vision in many aspects of society throughout the pandemic."); ClearCaptions, LLC (ClearCaptions) 2022 IVCS Refresh Comments at 1 ("Video conferencing is central to communications and ever more important due to remote learning and social distancing.").

[59] AARO 2022 IVCS Refresh Comments at 4; ACB 2022 IVCS Refresh Comments at 2; AFB 2022 IVCS Refresh Comments at 2.

[60] CTIA 2022 IVCS Refresh Comments at 2, 10.

[61] CTA 2022 IVCS Refresh Comments at 11, 13.

[62] CTIA 2022 IVCS Refresh Comments at 2 (emphasis added).

[63] *Id*. at 2.

[64] ACB and AFB 2022 IVCS Reply Comments at 1.

[65] To implement ACS accessibility, section 716(e)(1)(A) of the Act provides that, in prescribing regulations for that section, the Commission shall "include performance objectives to ensure the accessibility, usability, and compatibility of advanced communications services and the equipment used for advanced communications services by individuals with disabilities." 47 U.S.C. § 716(e)(1)(A). In the *2011 ACS Order*, the Commission adopted general, outcome-oriented performance objectives. *2011 ACS Order*, 26 FCC Rcd at 14647, para. 211; *see also* 47 CFR § 14.21. In the *2011 ACS Further Notice*, the Commission invited comment on whether to adopt more specific performance objectives with testable criteria. *2011 ACS Further Notice* at 14689, para. 310.

[66] CTA 2022 IVCS Refresh Comments at 1 ("The Commission's flexible approach to advanced communications services, along with industry-advocate collaboration, is increasing access to video conferencing services for individuals with disabilities."); CTIA 2022 IVCS Refresh Comments at 9 ("Maintaining the current performance-objective approach to ACS, which provides clarity and flexibility while eschewing any technical mandates, will best ensure the continued evolution of video conferencing platforms and myriad accessibility features that meet the unique needs of people with disabilities.").

- Integrated support for third-party captioning services and third-party video interpreting services;
- Compatibility with and access to current and next-generation relay services;
- Accessible user interface controls for the activation and customization of all video conferencing features, including the appearance of captions, ASL interpreters, and cued language transliterators.[67]

ACB argues that the Commission should consider performance objectives "for people who are blind, low vision, or DeafBlind."[68]

D. TRS and Video Conferencing

21. Enacted in 1990, Title IV of the Americans With Disabilities Act, codified as section 225 of the Communications 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.[69] 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."[70] There are currently three forms of Internet-based TRS: (1) Video Relay Service (VRS) "allows people with hearing or speech disabilities who use sign language to communicate with voice telephone users through video equipment;"[71] (2) 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;[72] and (3) 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.[73]

22. *TRS Fund*. The provision of Internet-based TRS is supported by the TRS Fund.[74] In addition, the TRS Fund supports interstate use of certain non-Internet-based relay services, which are provided through state TRS programs.[75] Entities required to make contributions to the TRS Fund include

[67] AARO 2022 IVCS Refresh Comments at 15.

[68] ACB 2022 IVCS Refresh Comments at 2 (asserting that the Commission should adopt "performance standards for people who are blind, low vision or DeafBlind" and "it is our strong preference that industry work together with advocates to develop international or national performance-based standards for ACS, including IVCS").

[69] 47 U.S.C. § 225(b)(1).

[70] *Id*. § 225(a)(3).

[71] 47 CFR § 64.601(a)(51); *see also Structure and Practices of the Video Relay Service Program,* CG Docket No. 10-51, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 5545, 5548-49, para. 2 (2011) (*2011 VRS Call Practices Order*).

[72] 47 CFR § 64.601(a)(23). The text transmission is delivered to an IP Relay call center, where a CA converts the user's text to speech for the hearing party and converts that party's speech to text for the IP Relay user. *See Provision of Improved Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities,* CC Docket No. 98-67, Declaratory Ruling and Second Further Notice of Proposed Rulemaking, 17 FCC Rcd 7779, 7780-81, paras. 3-4 (2002) (*2002 IP Relay Declaratory Ruling*).

[73] 47 CFR § 64.601(a)(22); *see Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Internet-based Captioned Telephone Service*, CG Docket No. 03-123, Declaratory Ruling, 22 FCC Rcd 379, 385, para. 14 (2007) (*2007 IP CTS Declaratory Ruling*).

[74] 47 CFR § 64.604(c)(5)(iii)(A).

[75] *Id*.

providers of telecommunications service, interconnected VoIP service, and non-interconnected VoIP service.[76]

23. *DAC 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,[77] 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:

> It 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 (PSTN).[78]

24. Such a dial-in connection is often unavailable.[79] Further, the committee explains, when a dial-in connection to a video conference is available, a TRS user may encounter multiple difficulties.[80] 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 CA, who is only connected to the video conference via an audio-only dial-in connection.[81] 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.[82] The committee also explains that, 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.[83] Further, the CA's audio-only connection may result in poor audio quality, causing errors in interpretation or captioning.[84] 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.[85]

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[76] *Id*.

[77] For example, Internet-based TRS providers assign users NANP telephone numbers and maintain those numbers in the TRS Numbering Directory, which is used to route calls between Internet-based TRS users and end users served by other service providers. 47 CFR § 64.613; *see also Telecommunications Relay Services And Speech-to-Speech Services For Individuals With Hearing And Speech Disabilities, E911 Requirements For IP-Enabled Service Providers*, CG Docket No. 03-123, WC Docket No. 05-196, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 11591 (2008).

[78] DAC Video Conferencing Report at 2. Since the DAC 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. *See* Letter from John T. Nakahata, Counsel to Sorenson Communications, to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 10-51 and 03-123 (filed Mar. 10, 2023); *Sorenson-for-Zoom*.

[79] DAC Video Conferencing Report at 2.

[80] *Id*. at 3-4.

[81] *Id*. at 3.

[82] *Id*.

[83] *Id*. at 3-4.

[84] *Id*. at 4.

[85] *Id*.

25. For all 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.[86]

26. *Sorenson Petition*. On December 19, 2022, Sorenson filed a petition seeking a limited waiver of the VRS privacy screen rule.[87] A visual privacy screen is a feature that prevents one party on the video leg of a VRS call from viewing the other party.[88] The privacy screen rule prohibits a VRS CA from enabling a visual privacy screen or similar feature during a VRS call, and requires a VRS 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 for more than five minutes.[89] Sorenson seeks a partial waiver of the rule so that VRS users participating in video conferences are allowed to turn off their video connections when not presenting or for other reasons not related to inactivity. On January 12, 2023, the Bureau sought comment on the Sorenson Petition.[90] AARO, the lone commenter, supported grant of the Sorenson Petition.[91]

III. REPORT AND ORDER

27. The rapid growth of video conferencing underscores the need to resolve lingering uncertainty as to the application of our accessibility rules in this area. As recent comments make clear, the social shift born of the pandemic has altered the norms of modern communication.[92] The record, other relevant FCC documents, and public sources indicate that substantial barriers to effective communication remain for many people with disabilities,[93] supporting AARO's general assessment that "*some* video conferencing services are accessible to *some* people with *some* disabilities in *some* contexts."[94] As video conferencing becomes further entrenched as an essential means of communication, it is of critical importance to resolve the extent to which these services are covered by section 716 and our accessibility

[86] *Id*. at 4-5.

[87] Sorenson Petition.

[88] *See* 47 CFR § 64.601(a)(52) (defining "visual privacy screen").

[89] *See id*. § 64.604(a)(6); *see also 2011 VRS Call Practices Order*, 26 FCC Rcd at 5567, para. 41.

[90] *See Consumer and Governmental Affairs Bureau Seeks Comment on Sorenson Communications, LLC's Petition for a Limited Waiver of the Privacy Screen Rule for Video Relay Service*, CG Docket Nos. 03-123 and 10-51, Public Notice, DA 23-28 (CGB Jan. 12, 2023). Commenters on the relevant issues raised in the Sorenson Petition are listed in Appendix A, and the comments are cited herein as "[Name] Sorenson Petition Comments."

[91] AARO Sorenson Petition Comments, CG Docket Nos. 03-123 and 10-51, at 3-4 (filed Feb. 13, 2023).

[92] *See* Eric Griffith, *Hate Being on Live Calls? Sorry, They're Here to Stay*, (Aug. 29, 2022), https://www.pcmag.com/news/hate-being-on-live-video-calls-sorry-theyre-here-to-stay.

[93] *See* AARO 2021 CVAA Refresh Comments at 4; AFB 2022 IVCS Refresh Comments at 1 ("Barriers include navigating the user interface and accessing information shared by other users."); AFB 2022 CVAA Report Comments at 2-3 (describing specific accessibility concerns with WebEx, Microsoft Teams, and the desktop version of Slack).

[94] AARO 2022 IVCS Refresh Reply Comments at 4 (emphasis added).

rules. In the absence of clarity, service providers are left uncertain as to their obligations, and consumers face an inconsistent patchwork of accessibility features that limit their ability to reliably achieve effective communication.[95]

28. In light of these changed circumstances, and taking into account comments in the record, we revisit the Commission's previously stated views regarding the interpretation of the statutory term "interoperable video conferencing service."[96] The Act defines "interoperable video conferencing service" as "a service that provides real-time video communications, including audio, to enable users to share information of the user's choosing."[97] As explained below, we find no persuasive reason to modify or limit the scope of the statutory definition of this term. Therefore, we decline to revise Part 14 of our rules, which incorporates the statutory definition, and we conclude that Part 14 applies to all services and equipment that "provid[e] real-time video communications, including audio, to enable users to share information of the user's choosing."[98]

29. By its terms, the statutory definition of "interoperable video conferencing service" encompasses a variety of video communication services that are commonly used today, or that may be used in the future, to enable two or more users to share information with one another.[99] Nothing in the definition suggests that it is limited to services that are only suitable for particular kinds of users—e.g., professional users who need a wide selection of features and tools to conduct online meetings, or casual users who want to have spontaneous video conversations with friends.[100] The definition also does not indicate an intention to exclude any service based on whether it is used primarily for point-to-point or multi-point conversations,[101] or based on the type of device used to access the service.[102] Similarly, based on the wording of this definition, its application does not depend on the options offered to users for connecting to a video conference (e.g., through a dial-up telephone connection or by broadband, through a

[95] *Id*. at 4.

[96] *See 2011 ACS Order*, 26 FCC Rcd at 14576.

[97] *Id*.

[98] 47 U.S.C. § 153(27).

[99] In 2011, the Commission interpreted a qualifying phrase in the definition—"to enable users to share information of the user's choosing"—to mean that services "providing real-time video communications, including audio, "*between two or more users*" would be included, "even if they can also be used for video broadcasting purposes (*only from one user*)." *2011 ACS Order*, 26 FCC Rcd at 14578, para. 50 (emphasis in original). However, a service that provides real-time video and audio communications "*only from one user*" (i.e., "video broadcasting") would *not* meet the definition of "interoperable video conferencing service." *Id*. (emphasis in original).

[100] *See, e.g.*, Edgar Cervantes, *Zoom vs Facetime: Which is right for you?* (Jan. 23, 2022), Android Authority, https://www.androidauthority.com/zoom-vs-facetime-1106307/ (explaining that some "video calling services are made with very different users in mind").

[101] *See* Dana Miranda and Rob Watts, *What Is Video Conferencing?*, Forbes Advisor (updated Aug. 6, 2022), https://www.forbes.com/advisor/business/what-is-video-conferencing/ (*What Is Video Conferencing*) (stating that a video conference can be point-to-point, i.e., "[a] one-on-one conversation involving two participants in different locations," or multi-point, i.e., "a conversation that involves three or more people in at least two locations").

[102] *See* Julia Kagan, *Video Conferencing: How It Works, How to Use It, Top Platforms*, Investopedia (updated June 2, 2022), https://www.investopedia.com/terms/v/video-conferencing.asp (noting that "individuals may use web cameras connected to or built into laptops, tablets, or desktop computers, as well as [s]martphones and other connected mobile devices equipped with cameras," while "[s]ome businesses use dedicated video conferencing rooms that have been equipped with high-grade cameras and screens to ensure the conversation is clear and with limited technical faults."); *see also What Is Video Conferencing*.

downloadable app or a web browser),[103] what operating systems or browsers their devices may use, whether the service works with more than one operating system, or whether the service may be classified as offered to the public or to a private group of users (such as a telehealth platform). What matters is that two or more people can use the service to share information with one another in real-time, via video.

30. As AARO and AFB explain, narrowing the scope of our Part 14 rules to a more limited class of services by importing our own definition of "interoperable" would bring those rules into conflict with the definition mandated by Congress.[104] In terms of our codified rules, this conclusion maintains the status quo, as the statutory definition of "interoperable video conferencing service" has been incorporated in the Commission's rules for more than a decade.[105]

31. While the Commission stated in 2011 that it "must determine [the] meaning [of 'interoperable'] in the context of the statute,"[106] in light of the further comments we received we conclude that, as the Supreme Court has repeatedly held, "'[w]hen a statute includes an explicit definition, we must follow that definition,' even if it varies from a term's ordinary meaning."[107] Here the interpretation of the statutory term has already been given by the statutory definition: IVCS is "a service that provides real-time video communications, including audio, to enable users to share information of the user's choosing." Because that definition does *not* include the word "interoperable," it is unnecessary to construe that word separately in this context.[108]

32. The legislative history of the CVAA also supports our conclusion that we may rely on the statutory definition of "interoperable video conferencing service" without further elaboration on the word "interoperable." As the Commission noted in 2011, early versions of the legislation used the term "video conferencing service," without the word "interoperable."[109] The term was left unchanged in the House of

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[103] *See What Is Video Conferencing* (explaining that certain "services require all participants to download software if they want to send audio or video," while others permit users to "start a meeting without creating an account or downloading software").

[104] AFB Comments at 2; AARO Comments at 5 ("The Commission may not impose further limitations on the scope of IVCS beyond those limitations explicitly provided by Congress.").

[105] 47 CFR § 14.10(m); *2011 ACS Order*, 26 FCC Rcd at 14708-09 (adopting the statutory definition of IVCS).

[106] *2011 ACS Order*, 26 FCC Rcd at 14577, para. 47.

[107] *Tanzin v. Tanvir*, 141 S. Ct. 486, 490 (2020) (quoting *Burgess v. United States*, 553 U.S. 124, 130 (2008)); *see also Stenberg v. Carhart,* 530 U.S. 914, 942 (2000). As Justice Cardozo explained in *Fox* v. *Standard Oil Co. of N.J.*, 294 U.S. 87, 95-96 (1935):

> There might be force in this suggestion [that the Court should interpret a defined term in accord with its ordinary usage] if the statute had left the meaning of its terms to the test of popular understanding. Instead, it has attempted to secure precision and certainty by rejecting a test so fluid and indeterminate and supplying its own glossary. . . . In such circumstances definition by the average man or even by the ordinary dictionary with its studied enumeration of subtle shades of meaning is not a substitute for the definition set before us by the lawmakers with instructions to apply it to the exclusion of all others.

[108] AARO 2022 IVCS Refresh Comments at 5 (stating that the CVAA "affords the Commission no latitude to interpret the term 'interoperable' separately from the statute's explicit definition of 'interoperable video conferencing service'"). In cases of circularity—where the statutory term and the statutory definition of that term include a common word—it might be appropriate for an agency to interpret the common word. That is not the case here because "interoperable" does not appear in the statutory definition.

[109] *2011 ACS Order*, 26 FCC Rcd at 14576, para. 46.

Representatives committee report on H.R. 3101, released in July 2010.[110] However, in the Senate report on S. 3304, released in December 2010, the Senate Committee on Commerce, Science, and Transportation added the word "interoperable" to "video conferencing service."[111] The Commission has found nothing in the legislative history of the CVAA to explain why the word was added, or what that change was meant to communicate, if anything. "The interpretation of statutes cannot safely be made to rest upon mute intermediate legislative maneuvers."[112]

33. Additionally, nothing in the legislative history suggests that Congress intended for the insertion of "interoperable" in the defined term to change the draft bill's existing definition of "video conferencing service." The definition remained the same in all versions, even when the term it was defining metamorphosed without explanation.[113] This compels us to conclude that, whatever reason the Senate Committee may have had for altering the term used to describe the service, there was no intent to alter the definition of that term or to require separate interpretation of any word within that defined term.

34. *Alternative Suggested Definitions*. We find unpersuasive the alternative definitions of "interoperable video conferencing service" that various commenters proffer in lieu of the statutory definition.[114] CTA continues to advocate a proposal advanced in 2011: that covered services be limited to those that have "the ability to operate among different platforms, networks and providers without special effort or modification by the end user."[115] At that time, the Commission expressed concern that "this proposed definition would exclude virtually all existing video conferencing services and equipment from the accessibility requirements of Section 716, which we believe would be contrary to Congressional intent."[116] In its 2022 comments, citing the development of standards that improve interoperability, CTA suggests that its proposed definition would include a number of commonly used video services such as Webex, Google Meet, and BlueJeans by Verizon.[117] However, CTA emphasizes that its approach "will ensure that only the subset of video conferencing services that are genuinely interoperable is covered under section 716."[118]

35. CTIA suggests a modified version of this formulation that would limit covered services to those that can "function inter-platform and inter-network."[119] Under CTIA's proposal:

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[110] *See* Twenty-First Century Communications and Video Accessibility Act of 2010, H. Rept. 111-563, 111th Cong. (2010), https://www.congress.gov/congressional-report/111th-congress/house-report/563/1.

[111] *See* Twenty-First Century Communications and Video Accessibility Act of 2010, S. Rept. 111-386, 111th Cong. (2010), https://www.congress.gov/congressional-report/111th-congress/senate-report/386/1.

[112] *Trailmobile Co. v. Whirls*, 331 U.S. 40, 61 (1947).

[113] As the D.C. Circuit noted in 1982, courts must "exercise caution before drawing inferences regarding legislative intent from changes made in committee without explanation. … amendments to a bill's language are frequently latent with ambiguity; they may either evidence a substantive change in legislative design or simply a better means for expressing a provision in the original bill." *Western Coal Traffic League v. U.S.*, 677 F.2d 915, 924 (D.C. Cir. 1982).

[114] Some commenters also stress that the Commission should not use this proceeding to mandate that video conferencing services be interoperable. CTIA Comments at 11-12; CTA Reply Comments at 4. That is a different question, which the Commission settled in 2011: There is no language in the CVAA supporting the view that interoperability is required or should be required as a subset of "accessibility," "usability," or "compatibility." *2011 ACS Order*, 26 FCC Rcd at 14577, para. 48. We see no need to revisit that question.

[115] CTA 2022 IVCS Refresh Comments at 13; *see also 2011 ACS Order*, 26 FCC Rcd at 14684-85, para. 301 (seeking comment on "inter-platform, inter-network, and inter-provider" interpretation of "interoperable").

[116] *2011 ACS Order*, 26 FCC Rcd at 14684-85, para. 301.

[117] CTA 2022 IVCS Refresh Comments at 12-13 & n.37.

[118] *Id*. at 13.

> Inter-platform refers to the ability of a user to access a video conferencing service on multiple software platforms and operating systems, such as Google Android, Apple iOS, and Microsoft Windows, and "inter-network" refers to the "ability of a user to access a video conferencing service via the internet and on data networks, such as through a broadband connection like 4G LTE or 5G.[120]

According to CTIA, "[t]his definition reflects the video conferencing market today, which likely means the most widely used services today would be covered by the Commission's ACS rules."[121] Nonetheless, like CTA, CTIA acknowledges that its interpretation would narrow covered services to a smaller group than those fitting under the statutory definition.[122] ACB and AFB state that vertically integrated services such as Apple Facetime "would likely not meet [CTIA's] narrow definition of IVCS."[123]

36. The fundamental defect of these proposed alternatives is that they substantially alter the definition of "interoperable video conferencing service" provided by Congress. Supporters of alternative definitions fail to show how their proposed approaches, which they acknowledge are less inclusive than the statutory definition, could be harmonized with Congress' definition. Instead, CTA and CTIA argue that relying on the statutory definition would render the word "interoperable" superfluous, effectively reading the word out of the statute.[124]

37. We reject CTA and CTIA's argument because it is far from clear that "interoperable" is superfluous. For instance, information sharing cannot take place at all without some degree of interoperability between the devices or software that each sharing user operates. The inclusion of the word "interoperable" in the term "interoperable video conferencing service" may simply reflect the fact that any video service satisfying that definition—i.e., any real-time video communication service that "enable[s] users to share information of the user's choosing"[125]—necessarily involves some level of interoperability among the particular devices and software employed by users of that service.

38. In any event, while the Commission should "construe statutes, *where possible*, so as to avoid rendering superfluous any parts thereof,"[126] it is not always "possible" to do so, given the

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[119] CTIA 2022 IVCS Refresh Comments at 2. By contrast with CTA's proposed definition, CTIA's proposal would define "interoperable video conferencing services" to include services that are interoperable "inter-platform and inter-network" but that are *not* interoperable between different providers.

[120] *Id*. at 10.

[121] *Id*.; *see also* ACB 2022 IVCS Refresh Reply Comments at 1 (stating that CTIA's proposed definition "would cover many services available today"); AARO 2022 IVCS Refresh Reply Comments at 13 (stating that "the operating-systems-and-Internet definition provides the most plausible way forward if the Commission concludes it must define interoperability separately").

[122] CTIA 2022 IVCS Refresh Comments at 12 (contrasting its approach with a simple application of the statutory definition, which "would be so sweeping as to *discourage* investment and innovation in accessible video conferencing services") (emphasis in original).

[123] ACB and AFB 2022 IVCS Refresh Reply Comments at 1-2.

[124] CTA 2022 IVCS Refresh Comments at 10; CTIA 2022 IVCS Refresh Comments at 12.

[125] 47 U.S.C. § 153(27).

[126] *Astoria Fed. Sav. & Loan Ass'n v. Solimino*, 501 U.S. 104, 112 (1991) (emphasis added); *see also Duncan v. Walker*, 533 U.S. 167, 174 (2001) ("It is our duty 'to give effect, *if possible*, to every clause and word of a statute' (quoting *U.S. v. Menasche*, 348 U.S. 528, 538-39 (1995)) (emphasis added); CTA Comments at 10 (citing these cases).

imperfections of the legislative process. Further, we must also read the text harmoniously.[127] Accordingly, interpretations that result in irreconcilable internal discord must be rejected. In this instance, as the proponents agree,[128] their interpretive attempts to give independent meaning to the word "interoperable" are inconsistent with the statutory definition. Therefore, we must conclude that it is not "possible" to interpret "interoperable" in the way that these commenters request.

39. *Administrative Procedure Act Notice*. We also conclude that the Commission has provided adequate notice in this proceeding that we could arrive at the decision we reach today. The *2022 IVCS Refresh Public Notice*, which was published in the Federal Register, invited the public to "file additional comments on the questions posed in the *2011 ACS Further Notice* regarding the meaning of the term 'interoperable' in the context of video conferencing services and equipment."[129] In the very next sentence, the *2022 IVCS Refresh Public Notice* made direct reference to a recent filing by AARO proposing that the Commission apply the statutory definition.[130] The *2022 IVCS Refresh Public Notice* also specifically invited commenters to "suggest additional alternatives or other types of input on how to interpret [the word 'interoperable']" beyond the three approaches suggested by the Commission in 2011.[131] The *2022 IVCS Refresh Public Notice* thus provided ample indication that the interpretive question could have a broader range of outcomes than those specifically suggested in 2011.

40. Even assuming, *arguendo*, that notice was lacking, we find no conflict with the Administrative Procedure Act. Contrary to the arguments of several commenters, it is procedurally proper for the Commission, in this *Report and Order*, to conclude that "interoperable video conferencing service" has the meaning given by the statutory definition.[132] In this *Report and Order*, the Commission is not adopting or amending any substantive rule.[133] Therefore, the notice-and-comment requirements of the Administrative Procedure Act are not implicated by any action taken here. We are simply revisiting the Commission's prior assertion, in the *2011 ACS Report and Order*, of a perceived need to resolve, through further interpretation, the correct interpretation of the word "interoperable." At most that assertion was an interpretive rule, and hence prior notice was not required to revisit that interpretation.[134] The Supreme Court has confirmed that the adoption or modification of interpretive rules occur outside the APA's notice-and-comment requirements.[135]

41. *Effective Date*. This Report and Order will be effective thirty days after publication of a summary in the Federal Register. Given the extended pendency of questions regarding the application of

[127] *See* Antonin Scalia & Bryan A. Garner, Reading Law: The Interpretation Of Legal Texts, 180-82 (2012) (stating that the "Harmonious-Reading" canon of statutory interpretation provides that "[t]he provisions of a text should be interpreted in a way that renders them compatible, not contradictory.").

[128] CTA 2022 IVCS Refresh Comments at 13; CTIA 2022 IVCS Refresh Comments at 12.

[129] *2022 IVCS Refresh Public Notice* at 5.

[130] *Id*.

[131] *Id*.

[132] *See* CTIA 2022 IVCS Refresh Reply Comments at 6 (stating that "the Commission raised the issue of what interoperable means, not whether it has any meaning"); CTA 2022 IVCS Refresh Reply Comments at 4 (arguing that the Commission "has not provided any indication that the agency is considering revising its holding [that '"interoperable" cannot be read out of the statute'], and there are no pending petitions for reconsideration before the Commission on this issue").

[133] As noted above, the Commission's rules already incorporate the statutory definition of "interoperable video conferencing service."

[134] *See* 5 U.S.C. 553(b)(A).

[135] *Perez v. Mortgage Bankers Ass'n*, 575 U.S. 92, 96 (2015) (stating that the APA's notice-and-comment requirement "does not apply to interpretive rules, general statements of policy, or rules of agency organization, procedure, or practice").

these requirements to video conferencing, we recognize that some service providers may need additional time to fully comply with this Report and Order. For that reason, we extend the date for compliance with the Part 14 video conferencing service rules until one year from the effective date. The Commission directs the Consumer and Governmental Affairs Bureau to announce the compliance date by subsequent Public Notice.

IV. NOTICE OF PROPOSED RULEMAKING

42. We propose to amend our rules to improve the accessibility of video conferencing, whether used for work, education, healthcare, entertainment, or other activities.[136] First, to address "the integration of [TRS] CAs and the overall accessibility challenges of videoconferencing platforms,"[137] we propose to adopt additional performance objectives for the accessibility of interoperable video conferencing services.[138] We specifically propose that such performance objectives (1) include the provision of speech-to-text (e.g., captioning of all voice communications in a video conference) and text-to-speech; and (2) enable the use of sign language interpreting. We seek comment on whether additional amendments are needed to ensure that video conferencing is accessible. We also seek comment on whether technical standards are available or could be fashioned for use as safe harbors,[139] whereby certain performance objectives for IVCS can be satisfied by providing access to relevant forms of TRS.[140]

43. Second, we propose to amend our Part 64 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.[141] In addition, we propose certain modifications to our rules to specify the conditions under which the TRS Fund will support the provision of TRS with video conferencing.

A. Amending Part 14 to Improve the Accessibility of Video Conferencing

1. Performance Objectives

44. Section 716 of the Act directs the Commission to adopt "performance objectives to ensure the accessibility, usability, and compatibility of advanced communications services."[142] To implement this requirement, the Commission in 2011 adopted general performance objectives specifying that (1) input, control, and mechanical functions are "locatable, identifiable, and operable" by people with disabilities and that (2) "[a]ll information necessary to operate and use the product" is available to people

[136] The proposals in this Notice of Proposed Rulemaking are applicable to those services that fit the statutory definition of "interoperable video conferencing service." *See* 47 U.S.C. § 153(27); 47 CFR § 14.10(m) (incorporating the statutory definition); *see also supra* note 99 (noting that a service that provides real-time video and audio communications only from one user would not meet the definition of "interoperable video conferencing service"). In this Notice of Proposed Rulemaking, when we refer to "video conferencing" or "video conferences," we mean video conferencing or video conferences that involve the use of an interoperable video conferencing service, as defined.

[137] DAC Video Conferencing Report at 5; *see also id*. at 6 (providing a detailed recommendation).

[138] *See* 47 U.S.C. § 617(e)(1)(A); 47 CFR § 14.21.

[139] *See* 47 U.S.C. § 617(e)(1)(D).

[140] *See* DAC Video Conferencing Report at 5 (recommending that the Commission "facilitate the development of an application programming interface (API) or other standardized technical mechanism to allow TRS providers to directly interconnect to video conferencing platforms" and "work with all stakeholders to ensure that TRS users can use standard user interfaces on all video conferencing platforms to join their preferred TRS provider to a video conference, in real-time").

[141] *See id*. at 5 (recommending that the Commission "[c]larif[y] the legal ability of TRS providers to seek compensation for service provided for video conferences from the TRS Fund"); *see also id*. at 6 (providing additional explanation of this recommendation).

[142] 47 U.S.C. § 617(e)(1)(A).

with disabilities."[143] For example, ACS must be "[o]perable without hearing," which is defined to mean "[p]rovide at least one mode that does not require user auditory perception."[144] These general performance objectives are applicable to IVCS as well as other types of ACS.

45. We believe that the Commission's Part 14 performance objectives have encouraged innovative and effective approaches to achieve accessibility for covered equipment and services. However, given the seismic shift in how we communicate, and based on this proceeding's record and the Disability Advisory Committee Report, we seek comment on whether to amend the rules to define more specific objectives for making IVCS accessible.[145] We note that some IVCS providers have added accessibility features to their products in response to consumer need during the COVID-19 pandemic.[146] We seek 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. We also seek 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.

46. *DAC Recommendations*. As the Disability Advisory Committee has 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.[147] 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 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.[148]

47. We propose to amend the Part 14 performance objectives to address these recommendations and promote innovative future solutions for making IVCS accessible. Consistent with section 716 of the Act,[149] our 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

[143] 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." *Id*. § 14.21(c), (d).

[144] *Id*. § 14.21(b).

[145] *See, e.g*., AARO 2022 IVCS Refresh Reply Comments at 15-17.

[146] *See* CTIA 2022 IVCS Refresh Comments at 7-8.

[147] *See, e.g*., AARO 2022 IVCS Refresh Reply Comments at 15-17.

[148] DAC Video Conferencing Report at 6; *see also* AARO 2021 CVAA Refresh Comments at 14-15 (urging similar measures); AARO 2022 IVCS Refresh Comments at 21 (same).

[149] 47 U.S.C. § 617(b)(2).

cost[150] and that individuals with disabilities can access."[151]

48. *Captions*. We propose to adopt, as a performance objective specific to IVCS, the provision of captions for the audio communications in video conferences.[152] As AARO has explained, for people who are deaf or hard of hearing, "a lack of captions can make meaningful interaction impossible."[153] Some video conferencing platforms offer captions, which are typically provided via ASR.[154] 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."[155]

49. As explained in the *2022 CVAA Report to Congress*, 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.[156] 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.[157] Finally, as the Commission has noted with regard to automatic captioning in other forms of TRS, 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.[158]

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[150] "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.'" *2011 ACS Order*, 26 FCC Rcd at 14621, para. 152.

[151] 47 U.S.C. § 617(b)(2)(B). We note that IVCS providers must maintain records of their efforts to ensure that their services and products are accessible, 47 CFR § 14.31(a), and the rules do not provide an exemption from this requirement for service providers who rely on third-party applications or equipment to achieve accessibility.

[152] Concerns about user interface control of caption placement and other aspects of accessibility features are discussed below. *See infra* paras. 58-59.

[153] AARO 2022 IVCS Refresh Comments at 8.

[154] DAC Video Conferencing Report at 2-3. *See*, *e.g.*, Zoom Support, https://support.zoom.us/hc/en-us/articles/8158738379917-Managing-automated-captions (last visited May 16, 2023) ("These [automatic caption] options can be enabled and used by participants to easily follow the conversations or to meet accessibility requirements."); Microsoft, https://support.microsoft.com/en-us/office/use-live-captions-in-a-teams-meeting-4be2d304-f675-4b57-8347-cbd000a21260 (last visited May 16, 2023) ("Use live captions in a Teams meeting.").

[155] DAC Video Conferencing Report at 2-3; *see also* AARO 2022 IVCS Refresh Comments at 9-10.

[156] *2022 CVAA Report to Congress*, para. 23.

[157] Mark Ray, *Why Remote Work Can Be Hard For Hard-Of-Hearing People*, Forbes (Mar. 29, 2022), https://www.forbes.com/sites/nextavenue/2021/09/02/why-remote-work-can-be-hard-for-hard-of-hearing-people/?sh=76a3d4c46d71) (writing that "people with hearing loss rely more on nonverbal information than their peers . . . . They can miss visual clues, such as when a colleague is about to speak, and fall behind").

[158] *Internet Protocol Captioned Telephone Service Compensation; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Misuse of Internet Protocol (IP) Captioned Telephone Service;* CG Docket Nos. 22-408, 03-123, 13-24, Notice of Proposed Rulemaking and Order on Reconsideration, FCC 22-97, para. 16 & n.43 (Dec. 22, 2022) (citing Allison Koenecke et al., "Racial disparities in automated speech recognition," Proceedings of the National Academy of Sciences, Vol. 117 No. 14 (2020), https://www.pnas.org/doi/10.1073/pnas.1915768117 (studying "state-of-the-art ASR systems" developed by five major tech companies and finding an average word error rate of 35% for black speakers compared to 19% for white speakers)); *see also* Joshua L. Martin and Kelly Elizabeth Wright, "Bias in Automatic Speech Recognition: The Case of African American Language," Applied Linguistics (2022), https://academic.oup.com/applij/advance-article/doi/10.1093/applin/amac066/6901317 (discussing the impact of bias in ASR in employment and healthcare contexts).

50. We propose to amend section 14.21 of our rules to make clear that captioning is an essential component of accessibility in the context of IVCS. Section 14.21(b)(2)(iv) currently specifies that accessibility includes "[p]rovid[ing] auditory information through at least one mode in visual form and, where appropriate, in tactile form."[159] 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, we propose to amend section 14.21(b)(2)(iv) to read (with proposed new text shown in bold):

> 14.21(b)(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 at minimum comparable to that provided on TRS Fund-supported captioned telephone services.**

51. We seek 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[160] and innovative solutions, and to avoid mandatory technical standards?[161] Is this level of quality sufficient to provide a functionally equivalent experience for all users, including users of color or users with accents? Alternatively, we invite comment on the extent to which current performance objectives, such as section 14.21(b)(2)(i), already require that IVCS provide an appropriate level of caption quality.[162] How can the FCC promote improvements in ASR technology to address any existing algorithmic bias?

52. 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 automatic speech recognition—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

[159] 47 CFR § 14.21(b)(2)(iv).

[160] *See* 47 U.S.C. § 617(a)(2), (b)(2).

[161] *See id*. § 617(e)(1)(D). The Commission has a pending proceeding on quantifying minimum standards for the quality of captions provided by TRS Fund-supported captioned telephone services (CTS and IP CTS) and establishing methods of measuring caption quality. *See Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services and Speech to Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service Program,* CG Docket Nos. 13-24, 03-123, and 10-51, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 35 FCC Rcd 10866, 10898-903, paras. 66-91 (2020) (*2020 IP CTS Order*). 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 CTS and IP CTS by the Commission, such metrics could serve as a safe-harbor technical standard for IVCS as well.

[162] *See* 47 CFR § 14.21(b)(2)(i) ("*Operable without vision*. Provide at least one mode that does not require user vision."); *see also id*. § 14.21(b)(2)(ii) ("*Operable with low vision and limited or no hearing*. Provide at least one mode that permits operation by users with visual acuity between 20/70 and 20/200, without relying on audio output."); *id*. § 14.21(b)(2)(iii) ("*Operable with little or no color perception*. Provide at least one mode that does not require user color perception.").

browser or application to view captions.[163]

53. To address this concern, we seek comment on whether to specify that IVCS enable the use of alternative captioning methods, such as Communication Access Realtime Translation (CART).[164] 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?[165] 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), which allows covered service providers to meet their accessibility obligations either natively or by using third party applications or equipment?[166]

54. *Text-to-Speech*. To ensure that IVCS is operable by people with disabilities who need to communicate by text, we propose to amend section 14.21(b)(1)(ix), which specifies that ACS be operable in "at least one mode that does not require user speech,"[167] to read (with proposed new text shown in bold):

> 14.21(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 functionality.**

We seek comment on this proposal. Would text-to-speech and captions, along with compatibility with refreshable braille displays or other peripheral devices,[168] 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)?[169] Should we 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)?[170] Is there an effective means for users to connect with and use IP Relay in video conferences?

55. *Sign Language Interpreting*. We also propose to adopt, as a performance objective, that IVCS enable the provision of sign language interpreting, such as through a third-party interpreting service

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[163] DAC Video Conferencing Report at 3.

[164] CART "is the instant translation of the spoken word into English text using a stenotype machine, computer, and realtime software." NCRA, The Association for Court Reporters and Captioners, *Captioning Matters*, https://www.ncra.org/captioningmatters (last visited May 16, 2023).

[165] *See* DAC Video Conferencing Report at 6 (recommending that the Commission "ensure at a minimum that video conferencing platforms . . . [f]ully integrate support for TRS CAs, including video audio, captioning, and text communication").

[166] *See* 47 U.S.C. § 617(b)(2) ("A provider of services may satisfy the requirements of paragraph (1) . . . by (A) ensuring that the services that such provider offers are accessible to and usable by individuals with disabilities without the use of third party applications, peripheral devices, software, hardware, or customer premises equipment; or (B) if such provider chooses, using third party applications, peripheral devices, software, hardware, or customer premises equipment that is available to the consumer at nominal cost and that individuals with disabilities can access.").

[167] 47 CFR § 14.21(b)(ix) ("*Operable without speech*. Provide at least one mode that does not require user speech.").

[168] *See* 47 CFR § 14.21(d) (stating that "[t]he term *compatible* shall mean compatible with peripheral devices and specialized customer premises equipment . . .").

[169] 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.

[170] *See* DAC Video Conferencing Report at 6 (recommending that the Commission "ensure at a minimum that video conferencing platforms . . . [f]ully integrate support for TRS CAs, including video audio, captioning, and text communication").

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."[171] 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. As the committee explains, 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.[172] 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.[173]

56. To provide guidance on how to make video conferencing accessible to people who use sign language, we propose to add a new performance objective to section 14.21 of our 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.[174] We seek comment on this proposal and its costs and benefits. We also seek comment on the following language for this proposed performance objective:

> 14.21(b)(4)(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.**[175]

To ensure that providers of video remote interpreting (VRI) and VRS can connect with an IVCS provider's platform, should we 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.[176] 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?

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[171] *Id*. at 3.

[172] *Id*. at 3-4 (noting that the use of two separate devices "introduces significant cognitive load" that can cause confusion, fatigue, or otherwise decrease a user's ability to fully participate in a video conference.)

[173] *See, e.g.*, Letter from John T. Nakahata, Counsel to Sorenson, to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 10-51 and 03-123 (filed Mar. 10, 2023) (reporting demonstration of VRS integration with Zoom IVCS). Sorenson has now made available to its customers an application that allows its VRS CAs to participate in a Zoom conference call. *See Sorenson-for-Zoom* (instructions for application to integrate Sorenson VRS CAs on a Zoom conference call).

[174] DAC Video Conferencing Report at 6; *see also* AARO 2021 CVAA Refresh Comments at 14-15 (recommending a similar measure); AARO 2022 IVCS Refresh Comments at 21 (same).

[175] *Cf. Section 508 and 225 Guidelines*, § 412.7; https://www.access-board.gov/ict/#412.7 ("Where ICT provides real-time video functionality, the quality of the video shall be sufficient to support communication using sign language".).

[176] *See* Letter from Nicole Dugan, National Cued Speech Association, to Marlene H. Dortch, Secretary, FCC, CG Docket Nos. 21-140 and 10-213 (filed June 2, 2023); AARO 2022 IVCS Refresh Comments at 20-21 (urging the Commission to "mandate the inclusion of essential accessibility features . . . including the appearance of cued language transliterators").

57. We also seek comment on whether additional performance objectives should be specified for IVCS to address other accessibility concerns. For example, are the current Part 14 performance objectives sufficient to ensure that people with disabilities other than hearing and speech disabilities can effectively participate in video conferences?

58. *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.[177] 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.

59. Section 14.21(b) of our rules generally requires that the control functions necessary for a user to operate a covered service or product be accessible.[178] We invite comment on the extent to which the existing section 14.21(b) 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?

> 14.21(b)(4)(ii): **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 we identify additional kinds of user interface controls that are necessary for accessibility?[179] We invite commenters to recommend language for performance objectives that would provide appropriate guidance in this area.

60. *Costs and benefits*. We seek 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:

(a) enable captioning of video conferences;
(b) provide text-to-speech capabilities;
(c) enable a video connection for sign language interpreters and VRS CAs;
(d) improve user interface controls; and
(e) address other possible performance objectives discussed above or in responsive comments?

61. How should we quantify such incremental costs? How should we compare those costs

[177] *See* DAC Video Conferencing Report at 6; *see also* AARO 2021 CVAA Refresh Comments at 14-15 (urging similar measures); AARO 2022 IVCS Refresh Comments at 21 (same).

[178] *See* 47 CFR § 14.21(b)(1) (providing that "control . . . functions shall be locatable, identifiable, and operable" in each mode listed in the subparagraphs of that provision); *see also id*. § 14.21(b)(2) (providing that all "information necessary to operate and use the product, including but not limited to, text, static or dynamic images, icons, labels, sounds, or incidental operating cue" shall be accessible); *id*. § 14.21(b)(3) ("The term usable shall mean that individuals with disabilities have access to the full functionality and documentation for the product.").

[179] *See, e.g.*, *Media Bureau Seeks Comment on Closed Captioning Display Settings Proposal*, MB Docket No. 12-108, Public Notice, DA 23-66 (MB Jan. 24, 2023) (seeking comment on proposal that when the Commission is determining whether specific closed captioning settings are readily available, it should consider the following factors: proximity, discoverability, previewability, and consistency and persistence).

with the benefits to IVCS users? Are there cost savings we 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.[180] We seek comment on this view.

62. In addition to describing and (where possible) quantifying the benefits that would result from meeting all the performance objectives proposed above, we invite comment on the extent to which particular performance objectives are "achievable," either at present or in the foreseeable future.[181] We stress 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, we may adopt new or modified performance objectives even if they are not immediately achievable for every provider. However, we can better assess the likely benefits of our 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.

63. *Legal Authority*. We believe 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.[182] 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"[183] and "determine the obligations under this section of manufacturers, service providers, and providers of applications or services accessed over service provider networks."[184] We believe our proposals fall within this broad grant of authority and are consistent with other provisions of section 716, including the allowance for flexible implementation through either native or third-party applications,[185] the prohibition on mandating technical standards,[186] and the condition that compliance is not required if it is not achievable.[187] We seek comment on this analysis.

64. We also seek 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

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[180] Ken Krechmer, *The role of technical standards in enabling the future,* The Bridge: 50th Anniversary Issue, National Academy of Engineering (Feb. 22, 2021), https://www.nae.edu/248425/The-Role-of-Technical-Standards-in-Enabling-the-Future.

[181] *See* 47 U.S.C. § 617(a)(1), (b)(1) (requiring that covered equipment and services be accessible to and usable by people with disabilities "unless the requirements of this subsection are not achievable"); *id*. § 617(c) (providing that "whenever the requirements of subsections (a) or (b) are not achievable, a manufacturer or provider shall ensure that its equipment or service is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, unless the requirement of this subsection is not achievable"); 47 CFR § 14.20(a)(1), (2), (3) (corresponding provisions of the Commission's rules); *see also id*. § 14.10(b) (defining "achievable" as "with reasonable effort or expense, as determined by the Commission," and listing four factors to be considered in making such a determination).

[182] 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. *Id*. § 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. *Id*. § 617(a)(1).

[183] *Id*. § 617(e)(1)(A).

[184] *Id*. § 617(e)(1)(C).

[185] *Id*. § 617(a)(2), (b)(2).

[186] *Id*. § 617(e)(1)(D).

[187] *Id*. § 617(a)(1), (b)(1).

225 of the Act, to require interconnected providers of VoIP service to provide access to TRS.[188] Could the Commission also find that it has authority ancillary to section 225, or other provisions, 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?

2. Safe Harbor Technical Standards

65. Section 716 of the Act provides that the Commission shall not adopt mandatory technical standards for ACS accessibility.[189] 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."[190] We seek comment on whether technical standards are available (or in development)—e.g., WebRTC[191] 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.[192]

66. We invite any commenter who proposes that a technical standard be recognized as a safe harbor 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?

67. We also seek comment on how the Commission 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?

B. Providing TRS in Video Conferences

1. Authorizing the Integrated Provision of TRS in Video Conferences

68. Responding to the Disability Advisory Committee's recommendations, we propose to amend our 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.[193] Just as the TRS Fund

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[188] *See IP-Enabled Services et al.,* WC Docket No. 04-36 et al., Report and Order, 22 FCC Rcd 11275, 11291-97, paras. 32-43 (2007) (*IP-Enabled Services*).

[189] 47 U.S.C. § 617(e)(1)(D).

[190] *Id*.

[191] 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. *See* Huib Kleinhout, *WebRTC is now a W3C and IETF Standard* (Jan. 26, 2021) https://web.dev/webrtc-standard-announcement/#:~:text=A%20brief%20overview%20of%20the,cases%2C%20and%20future%20of%20WebRTC.&text=The%20process%20of%20defining%20a,consistency%20and%20compatibility%20across%20browsers; W3C/IETF Press Release, https://www.w3.org/2021/01/pressrelease-webrtc-rec.html.en (last visited May 16, 2023).

[192] Section 716(e)(1)(D) of the CVAA provides that the Commission "shall . . . not mandate technical standards, except that the Commission may adopt technical standards as a safe harbor for such compliance if necessary to facilitate the manufacturers' and service providers' compliance" with the accessibility and compatibility requirements in Section 716. 47 U.S.C. § 617(e)(1)(D).

[193] DAC Video Conferencing Report at 5-6.

has long been used to support the provision of TRS with audio-only teleconferencing, we believe it is necessary and appropriate, as a general matter, that the TRS Fund be used to support the provision of TRS with video conferencing.

69. *Legal Authority*. We tentatively conclude 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, we mean 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.[194]

Applying this definition, we tentatively conclude 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."

70. As indicated by the text quoted above, section 225 defines TRS in terms of its purpose—to enable people with hearing or speech disabilities to "communicat[e] 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."[195] These definitions include wire or radio communication using Internet Protocol.[196] Further, we believe 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.

71. 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.[197] In its prior decisions authorizing new forms of TRS, the Commission has found

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[194] 47 U.S.C. § 225(a)(3) (emphasis added); *see also, e.g., 2002 IP Relay Declaratory Ruling*, 17 FCC Rcd at 7783, para. 10 (citing pre-CVAA language of Section 225).

[195] 47 U.S.C. § 153(40), (59).

[196] *See, e.g., Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities,* CC Docket No. 98-67, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 5140, 5152-54, paras. 21-27 (2000) (*2000 TRS Order*) (allowing TRS Fund compensation for VRS); *2007 IP CTS Declaratory Ruling*, 22 FCC Rcd at 387-90, paras. 19-26.

[197] *2002 IP Relay Declaratory Ruling,* 17 FCC Rcd at 7783, para. 10. Further, section 225 directs the Commission to "ensure that regulations prescribed to implement this section encourage, consistent with Section 7(a) of this Act,

(continued….)

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 PSTN and IP-enabled networks.[198] Similarly, when the Commission approved compensation for VRS, it noted that the service "is under development using a number of equipment configurations and…[o]ne [VRS] equipment configuration, for example, involves the use of personal computer and videoconferencing equipment along with access to broadband transmission services."[199] 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.[200]

72. We seek comment on the foregoing tentative conclusion and interpretation of our authority under section 225. Among other things, we seek comment on whether anything in section 225 or elsewhere in the Act indicates that our 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?

73. Below, we seek 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, we propose and seek comment on measures that specifically address the integration of VRS with video conferencing. Then, we seek comment on whether additional rule amendments are needed to specifically address the integration of other types of TRS with video conferencing. Finally, we propose to amend certain generally applicable TRS rules to address the integrated provision of TRS regardless of type.

2. Integrating the Provision of VRS with Video Conferencing

74. We tentatively conclude that the integrated provision of VRS with video conferencing is often necessary to enable sign-language users to communicate in a functionally equivalent manner.[201] First, the only alternative for connecting a VRS CA to a video conference—using a dial-up, voice-only connection—is often unavailable.[202] Second, the need to connect a VRS CA through a dial-up connection poses multiple difficulties for the user.[203] 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

(Continued from previous page)
the use of existing technology and do not discourage or impair the development of improved technology." 47 U.S.C. § 225(d)(2).

[198] *2007 IP CTS Declaratory Ruling*, 22 FCC Rcd at 388.

[199] *2000 TRS Order*, 15 FCC Rcd at 5152-53.

[200] *See Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; E911 Requirements for IP-Enabled Services Providers*, CG Docket No. 03-123 and WC Docket No. 05-196, 23 FCC Rcd 11591, 11594, para. 4 (2008) (prior to assignment of 10-digit telephone numbers, VRS users were assigned a "dynamic" Internet address).

[201] By "integrated provision of VRS" in a video conference, we mean 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.

[202] DAC Video Conferencing Report at 2. 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.

[203] *Id.* at 3-4.

other barriers to effective communication.[204] We seek comment on this tentative conclusion.

75. The active development and deployment of technological solutions for the integrated provision of VRS in a video conference[205] has crystallized a number of issues regarding the application of our TRS rules to such integration. Therefore, we propose to amend our rules, as set forth below, to facilitate such integration, ensure the appropriate use of VRS with video conferencing, and prevent waste, fraud, and abuse.

76. In addition, we invite 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. We seek comment 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 we not only *authorize*, but also *require* VRS providers to provide VRS with IVCS on an integrated basis?

3. VRS and Video Conferencing—User Validation and Call Detail

77. 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.[206] 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.[207] Further, VRS users may connect to a video conference without first contacting their VRS provider. We seek 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.

78. For example, should we amend our 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 we require a log-in ID and password? Should we 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?[208] Are there other methods of validation that we should permit in the video conferencing context?

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[204] *Id.* at 3. 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. *See id.*

[205] *See, e.g.*, Sorenson March 2023 Zoom *Ex Parte*; *Sorenson-for-Zoom*.

[206] *See* 47 CFR § 64.615(a)(1), (2).

[207] 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.

[208] *See* 47 CFR § 64.611(a)(6) (registration requirements for enterprise videophones).

79. We also seek comment on how our 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 our TRS rules?

80. In addition, the VRS provider will need to be able to collect and provide an appropriate call detail record (CDR) to submit to the TRS Fund administrator. Because our rules may apply differently to video conferences in a number of respects,[209] we propose 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 we 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 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?[210] In addition, we seek comment 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.

4. VRS and Video Conferencing—CA-Related Issues

81. *Multiple VRS Providers*. 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. We seek comment on whether our TRS rules should apply differently in this respect to a video conference than to a teleconference.[211] 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?

82. *Multiple CAs from a Single VRS Provider*. We also seek comment on whether to amend our 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), should we limit the number of CAs provided, and if so, based on what criteria?

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[209] For example, as discussed in the next section, for certain kinds of video conferencing calls a VRS provider may be compensated for the provision of a team of two CAs simultaneously handling a call.

[210] 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. *See Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Report and Order and Further Notice of Proposed Rulemaking, 34 FCC Rcd 8483, 8487, paras. 10-11 (2019) (*2019 TRS Definition Order*).

[211] 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.

83. 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.[212] 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.[213] Should we amend our rules 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 we could rely, that define when multiple ASL interpreters should be present at a meeting?[214] To what extent are guidelines for community interpreting applicable in the VRS context?[215] Are there any situations where the TRS Fund should support *more* than two CAs from a single VRS provider?[216]

84. *Multiple VRS Users*. We propose 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.[217] We seek 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?[218]

85. *Call Takeover Issues*. VRS CAs generally must stay on a call for a minimum of 10 minutes, after which they may be replaced by another CA.[219] We seek comment on whether to adjust this timeframe for the provision of VRS in video conferences. If so, what timeframe would be reasonable?

86. 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

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[212] *See, e.g.*, The Registry for Interpreters for the Deaf (RID), *Team Interpreting,* Standard Practice Paper, https://nvrc.org/wp-content/uploads/2011/07/Team_Interpreting_SPP.pdf (last visited May 16, 2023) (*RID Standard Practice Paper*).

[213] 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: highly interactive meetings, or legal requests, with multiple Deaf participants." LinguabeeLearn, *What is team interpreting and when is a team needed?* (Nov. 5, 2019), https://learn.linguabee.com/what-is-team-interpreting-and-when-is-a-team-needed/.

[214] RID states that factors to be considered in deciding whether to provide team interpreting include: (1) the length and complexity of the assignment; (2) unique needs of the persons being served; (3) physical and emotional dynamics of the setting; and (4) avoidance of repetitive stress injuries for interpreters. *RID Standard Practice Paper*.

[215] 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.

[216] We also propose a more generally applicable rule amendment (not limited to the video conferencing context) to address the use of multiple CAs in calls between users of different forms of TRS. *See infra* paras. 108-11.

[217] 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.

[218] *See* 47 CFR § 64.604(a)(1)(vi) ("TRS providers must make best efforts to accommodate a TRS user's requested CA gender when a call is initiated and, if a transfer occurs, at the time the call is transferred to another CA.").

[219] *See id*. § 64.604(a)(1)(v). CAs answering and placing an STS call shall stay with the call for a minimum of 20 minutes.

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 we encourage uninterrupted VRS call takeovers during video conferences, while not unduly burdening the TRS Fund and Fund contributors?

5. VRS and Video Conferencing—Privacy Screen Rule

87. We propose to modify our rules to allow flexibility for VRS users and CAs to turn off video while participating in a video conference. Our 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.[220] 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."[221] 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."[222]

88. 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.[223] 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.

89. We propose 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 our 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. We propose 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. We also propose 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. We seek comment on these proposals. Are there other steps we should take 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 we 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?

6. Integrating Other Types of TRS with Video Conferencing

90. We seek comment generally on the need to facilitate the integration of non-VRS types of

[220] *See id*. § 64.604(a)(6).

[221] *Id*. § 64.601(a)(52).

[222] *2011 VRS Call Practices Order,* 26 FCC Rcd at 5567, para. 40.

[223] Sorenson Petition at 4-5.

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 we 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?

91. *IP Relay*. We seek 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?[224] 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 our rules? Alternatively, would IP Relay be needed for certain populations to effectively participate in a video conversation in a way that is functionally equivalent?

92. If the integrated provision of IP Relay with video conferencing is achievable, what service-specific amendments to our rules would facilitate such integration, ensure the appropriate provision of IP Relay in this context, and prevent waste, fraud, and abuse? How can we 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?

93. *IP CTS.* We seek 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? We note that IVCS providers are permitted to meet the Part 14 performance objective of providing auditory information in visual form[225] either by implementing a captioning solution on the platform itself or by using third-party solutions available to consumers at nominal cost.[226] 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?

94. *Non-Internet-Based TRS*. We seek 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).[227] These services, offered through state TRS programs, are intended for use on an ordinary

[224] 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." *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Petition for Rulemaking of Sprint Corporation,* CG Docket No. 03-123, RM-11820, Report and Order, FCC 22-48, para. 13 (2022). Also, "some people with speech disabilities may prefer to use IP Relay, a text-based service that does not involve any voice communications by registered users, rather than speech-to-speech relay service (STS)." *Id.*

[225] *See* 47 CFR § 14.21(b)(2)(iv).

[226] *See id.* § 14.20(a)(3).

[227] 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.

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. We seek 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?

7. Rules Applicable to All TRS

95. In the paragraphs below, we seek 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.

96. *Confidentiality*. We propose to amend our TRS confidentiality rule[228] to address the video conferencing context. Specifically, we propose 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. We also propose to amend the confidentiality rule to codify our 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 automatic speech recognition or other automatic processes, without the involvement of a CA.[229]

97. The rule currently states 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."[230] 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" conversation 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."

98. The rule we propose 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.[231] We

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[228] 47 CFR § 64.604(a)(2).

[229] *See Misuse of Internet Protocol (IP) Captioned Telephone Service; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities,* CG Docket Nos. 13-24 and 01-123, Report and Order, Declaratory Ruling, Further Notice of Proposed Rulemaking, and Notice of Inquiry, 33 FCC Rcd 5800, 5832, para. 60 (2018) (stating that IP CTS providers relying on ASR, rather than CAs, must adhere to TRS confidentiality rule); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities,* CG Docket No. 03-123, Memorandum Opinion and Order, 35 FCC Rcd 4568, 4572, para. 8 (CGB 2020) (stating that ASR-only IP CTS provider must maintain confidentiality of calls).

[230] 47 CFR § 64.604(a)(2)(i). There is a limited exception for Speech-to-Speech CAs: "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." *Id.*

[231] 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.

seek comment on this proposal. Are additional amendments to our confidentiality rule necessary to protect the privacy of participants? For example, should we 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?

99. *Exclusivity Contracts.* Consistent with the DAC's recommendation,[232] we propose 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.[233] 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.[234] 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 we prohibit 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 we 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?

100. *TRS vs. Other Accessibility Measures*. We note that 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.[235] 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 or other laws[236]—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. We seek comment on the extent to which such accommodations, as well as accessibility features that may be available on a video conferencing platform,[237] may be more effective than TRS in making video conferences accessible.[238] Would the

[232] DAC Video Conferencing Report at 5.

[233] *See, e.g.*, *Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments*, MB Docket No. 07-51, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 20235 (2007) (banning exclusive service contracts between cable operators and MDUs).

[234] *See Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 10-51 and 03-123, 32 FCC Rcd 5891, 5908-10, paras. 34-36 (2017) (*2017 VRS Compensation Order*), *aff'd sub nom. Sorenson Communications, LLC v. FCC*, 897 F.3d 214 (2018); *2013 VRS Reform Order*, 28 FCC Rcd at 8699, para. 200.

[235] *See Federal Communications Commission Clarifies That Certain Telecommunications Relay Services (TRS) Marketing and Call Handling Practices Are Improper and Reminds That Video Relay Service (VRS) May Not Be Used as a Video Remote Interpreting Service,* Public Notice, 20 FCC Rcd 1471, 1474 (2005) (stating that, as a service providing access to the telephone network, VRS may not be used to interpret for two persons in the same location) (*2005 TRS Practices Public Notice*); *2019 TRS Definition Order*, 34 FCC Rcd at 8487, paras. 10-11 (explaining when the use of two TRS CAs on a call is compensable).

[236] *See, e.g.*, 42 U.S.C. § 12112(b)(5) (nondiscrimination in employment).

[237] *See supra* Part IV.A.

[238] *See* 28 CFR §§ 35.160(b)(2), 36.303(c)(ii) ("The type of auxiliary aid or service necessary to ensure effective communication will vary in accordance with the method of communication used by the individual; the nature, length, and complexity of the communication involved; and the context in which the communication is taking place.").

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?

101. Further, as stewards of the TRS Fund, we have an obligation to prevent waste and ensure that TRS is available in the most efficient manner.[239] 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 we 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 we 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?

102. As a related matter, we tentatively conclude 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.[240] 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.[241] 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.[242] 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. We seek comment on this tentative conclusion.

8. Costs and Benefits

103. We seek comment on the costs and benefits of each of the proposed rule amendments and other possible changes discussed above, including:

(a) Authorizing the integrated provision of VRS and other types of TRS with video conferences;
(b) Specifying modified methods of VRS user validation and call detail recording for video conferences;
(c) Addressing the use of multiple VRS CAs, service to multiple VRS users, and call takeover in video conferences;

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[239] 47 U.S.C. § 225(b)(1).

[240] *See 2000 TRS Order*, 15 FCC Rcd at 5165-66; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities,* CG Docket No. 03-123, Report and Order and Declaratory Ruling, 22 FCC Rcd 20140, 20176, para. 96 (2007); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities,* CG Docket No. 03-123, Declaratory Ruling, 20 FCC Rcd 1466, 1469, para. 8 (CGB 2005).

[241] *See 2000 TRS Order*, 15 FCC Rcd at 5165-66, paras. 60-63; 47 CFR § 64.604(b)(2).

[242] *2005 TRS Practices Public Notice*, 20 FCC Rcd 1471.

(d) Changes to the privacy screen rule;
(e) Changes to our TRS confidentiality rules;
(f) Prohibiting exclusivity agreements between TRS providers and IVCS providers, equipment manufacturers, and software suppliers; and
(g) Preventing disincentives for and duplication of the provision of accommodations by video conference organizers and providers.

104. We also seek 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, we seek 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. We also seek 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 our proposed rules. To what extent could there be offsetting cost savings? We also request that interested parties identify which costs would be appropriately identified as start-up or one-time costs, and which costs would be recurring.

105. 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?

106. *TRS Fund Compensation*. In general, we anticipate 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[243] and will be recovered pursuant to compensation formulas determined in the relevant compensation proceedings for each form of TRS.[244] However, we seek comment 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?

107. At least one VRS provider indicates it is already able to provide VRS with one IVCS provider on an integrated basis.[245] Absent a mandate, any additional costs incurred by VRS providers to provide such service, if significantly higher than costs reported to the Administrator and reflected in applicable compensation formulas, would not be recoverable under our current guidelines for exogenous cost recovery.[246] 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?

C. Amendment of the Commission's Rule on Multiple CAs

108. 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.[247] We propose to amend this provision to state generally that compensation may be paid

[243] *See* 47 CFR § 64.604(c)(5)(iii)(D)(*1*) (describing annual cost data to be provided to TRS Fund administrator).

[244] *See*, *e.g., 2017 VRS Compensation Order*, 32 FCC Rcd 5891.

[245] *See, e.g.*, Sorenson March 2023 Zoom *Ex Parte*; *Sorenson-for-Zoom*.

[246] 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. *2017 VRS Compensation Order*, 32 FCC Rcd at 5925, para. 66 (addressing exogenous cost recovery for VRS); *2020 IP CTS Order*, 35 FCC Rcd at 10886, para. 39 (addressing exogenous cost recovery for IP CTS).

[247] 47 CFR § 64.604(c)(14).

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.

109. Adopted in 2014, section 64.604(c)(14) 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[248]—and for calls between a captioned telephone service user and a user of TTY-based TRS or VRS.[249]

110. 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.[250] Subsequently, the Commission amended the definition of "telecommunications relay service" to reflect the statutory definition of that term as amended by the CVAA.[251] The amended definition provides that TRS enables 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."[252] In proposing this amendment, the Commission explained that the revised definition "will 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."[253] 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.[254]

111. We propose 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, "[c]alls between users of different types of relay services where more than one CA is warranted."[255] We seek comment on this proposal.

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[248] *Id.* § 64.604(c)(14)(i).

[249] *Id.* § 64.604(c)(14)(ii), (iii).

[250] *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Waivers of iTRS Mandatory Minimum Standards*, CG Docket No. 03-123, Order, Declaratory Ruling, and Further Notice of Proposed Rulemaking, 29 FCC Rcd 10697, 10718-19, para. 49 & n.189 (2014) (*Multiple Relay Calls Order* or *TRS Definition Further Notice*).

[251] *See 2019 TRS Definition Order*, 34 FCC Rcd at 8487, para. 10.

[252] 47 CFR § 64.601(a)(43); *see also* 47 U.S.C. § 225(a)(3); CVAA, § 103(a). 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) (emphasis added).

[253] *TRS Definition Further Notice*, 29 FCC Rcd at 10725, para. 65; *see also id*. at 10725, para. 64 (citing the legislative history of the CVAA); *TRS Definition Order*, 34 FCC Rcd at 8487, para. 10 (explaining that by revising the definition of TRS, the Commission "formally confirm[s] what our program administration already recognizes in practice—that in some instances, achieving communication between two individuals who have speech or hearing disabilities requires more than one type of relay service").

[254] 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.

[255] Section 64.604(c)(14)(i) remains necessary to allow compensation for calls between users of the same captioning service. *See Multiple Relay Calls Order*, 29 FCC Rcd at 10718-19, para. 49.

D. Advancing Diversity, Equity, Inclusion, and Accessibility

112. The Commission, as part of its continuing effort to advance digital equity for all,[256] 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[257] and benefits, if any, that may be associated with the proposals and issues discussed herein. Specifically, we seek comment on how our proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility.

V. ORDER

113. In this Order, we grant to all certified VRS providers a limited, partial waiver of the privacy screen rule[258] to allow VRS users and CAs to turn off their videos during a video conference, subject to the conditions described below. Pending Commission action on the proposals in this Notice, grant of this waiver will allow VRS providers flexibility to begin providing VRS integrated with video conferencing service without unduly disrupting current video conferencing practices.

114. The privacy screen rule prohibits a VRS CA from enabling a visual privacy screen or similar feature during a VRS call and requires 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.[259] 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."[260]

115. *Waiver Standard*. A Commission rule may be waived for "good cause shown."[261] In particular, a waiver is appropriate where the particular facts make strict compliance inconsistent with the public interest.[262] In addition, we may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.[263] Good cause for a waiver may be found if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest.[264]

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[256] Section 1 of the Communications Act of 1934 as amended provides that the FCC "regulat[es] interstate and foreign commerce in communication by wire and radio so as to make [such service] available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex." 47 U.S.C. § 151.

[257] 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. *See* Exec. Order No. 13985, 86 Fed. Reg. 7009, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (Jan. 20, 2021).

[258] 47 CFR § 64.604(a)(6).

[259] *Id.*

[260] *Id.* § 64.601(a)(52).

[261] *Id.* § 1.3.

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

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

[264] *Northeast Cellular*, 897 F.2d at 1166.

116. As Sorenson explains, in a video conference, a participant may turn off his or her video camera for various reasons that may not indicate lack of engagement with the discussion—e.g., if the host requests that all participants turn off their videos unless speaking, to make it easier for participants who are deaf to view a sign language interpreter.[265] 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. We agree with Sorenson that granting this limited waiver would "allow VRS users to use interactive video conferencing services without their video being activated beyond the current five-minute limitation, so that they can continue to receive VRS interpretation services for the duration of the interactive video conference, in the same manner as hearing users."[266]

117. We find good cause for granting this waiver, pending action on our proposed amendment of the privacy rule, to expedite the provision of integrated VRS in video conferences, so that VRS users can make full use of this increasing essential mode of communication "in a manner that is functionally equivalent to the ability of [a person without hearing or speech disabilities] to communicate using voice communication services."[267] As discussed above, video conferencing has become an essential means of communication for many Americans, and the record indicates that the integrated provision of VRS in video conferences is often necessary to enable sign-language users to communicate in a functionally equivalent manner.[268] Absent a waiver, the privacy screen rule would substantially restrict the ability of VRS providers to explore promising technologies for the provision of such integrated VRS.

118. This waiver, which applies to all certified VRS providers, shall terminate one year from the date of this Order, or on the effective date of Commission amendments to section 64.604(a)(6), whichever is earlier. The scope of the waiver is limited to "multi-party video conferences," i.e., video conferences involving three or more participants, not including persons providing TRS or other accessibility services.

119. To ensure that the TRS Fund administrator is able to effectively review the provision of integrated VRS in video conferences pursuant to this waiver, we require, as a condition of this limited waiver of section 64.604(a)(6), that a provider identify in its monthly compensation requests every video conference call in which VRS is provided on an integrated basis. Further, a provider shall provide the TRS Fund administrator with all information reasonably requested to determine TRS Fund payments and the compensability of such video conference calls.[269] In addition, given that IVCS-VRS integration solutions are still under development, we believe that consumers should be made aware of any limitations of such applications and should be able to contact the VRS provider immediately if the expected connection fails. Therefore, as an additional condition on grant of this waiver, we require each VRS provider to prominently display a notice to its VRS consumers connecting to video conferencing services with this application stating that:

- This application for connecting to video conferencing services is in development and its features and functions may change as development continues;
- At this time, this application allows connections with only [name applicable IVCS

[265] Sorenson Petition at 4-5.

[266] *See id.* at 9.

[267] 47 U.S.C. § 225(a)(3).

[268] As discussed above, this is because the only current alternative for connecting a VRS CA to a video conference—using a dial-up, voice-only connection—is often unavailable, and such connections pose multiple difficulties for VRS users. *See supra* para. 74.

[269] *See* 47 CFR § 64.604(c)(5)(iii)(D)(*1*) ("TRS providers seeking compensation from the TRS Fund shall provide the administrator with true and adequate data . . . reasonably requested to determine the TRS Fund revenue requirements and payments."); *see also supra* Part IV.B.3 (seeking comment on the type of call detail needed to support requests for compensation for the provision of VRS integrated with video conferences).

providers] and not to all video conferencing services; and,

- Consumers should contact a [name of VRS provider] representative at EMAIL/NUMBER if they cannot connect to a [name applicable IVCS provider] video conference with the application or if the application fails during a [name applicable IVCS provider] video conference after an initial connection.

This notice shall remain in place until termination of this waiver.

VI. PROCEDURAL MATTERS

120. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),[270] requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.[271] In the *Report and Order*, the Commission declines to adopt rule changes and therefore a Final Regulatory Flexibility Analysis has not been performed. The Commission seeks comment on potential rule and policy changes contained in the *Notice of Proposed Rulemaking (Notice)*, and accordingly, has prepared an Initial Regulatory Flexibility Analysis (IRFA). The IRFA is set forth in Appendix C. Written public comments are requested on the IRFA. Comments must be filed by the deadlines for comments on the *Notice* indicated on the first page of this document and must have a separate and distinct heading designating them as responses to the IRFA.

121. *Congressional Review Act*. The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that this rule is non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Report and Order, Notice of Proposed Rulemaking, and Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).[272]

122. *Paperwork Reduction Act Analysis.* The *Report and Order* does not contain new or modified or proposed information collections subject to the Paperwork Reduction Act of 1995 (PRA).[273] Therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002.[274]

123. *Initial Paperwork Reduction Act of 1995 Analysis*. The Notice of Proposed Rulemaking may contain new or modified information collection(s) subject to the PRA.[275] 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. 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,[276] we seek specific comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees."[277]

124. *Comments*. Pursuant to sections 1.415 and 1.419 of the Commission's rules, interested

[270] The RFA, 5 U.S.C. §§ 601-602, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[271] 5 U.S.C. §§ 603, 605(b).

[272] *Id*. § 801(a)(1)(A).

[273] Paperwork Reduction Act of 1995, 44 U.S.C. §§ 3501-3520 (2016).

[274] 44 U.S.C. § 3506(c)(4).

[275] Public Law 104-13.

[276] Public Law 107-198.

[277] 44 U.S.C. § 3506(c)(4).

parties may file comments on or before the dates indicated on the first page of this document.[278] Comments may be filed using the Commission's Electronic Comment Filing System (ECFS).[279]

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: https://www.fcc.gov/ecfs/filings.
- 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.

Currently, the Commission does not accept any hand delivered or messenger delivered filings as a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. In the event that the Commission announces the lifting of COVID-19 restrictions, a filing window will be opened at the Commission's office located at 9050 Junction Drive, Annapolis Junction, MD 20701.[280]

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail may be addressed to 45 L Street, NE, Washington, DC 20554.
- During the time the Commission's building is closed to the general public and until further notice, if more than one docket or rulemaking number appears in the caption of a proceeding, paper filers need not submit two additional copies for each additional docket or rulemaking number; an original and one copy are sufficient.

125. *Ex Parte Rules*. The proceeding the Notice of Proposed Rulemaking initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules.[281] 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

[278] 47 CFR §§ 1.415, 1.419.

[279] *See* FCC, Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (May 1, 1998).

[280] *See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, 35 FCC Rcd 2788 (OMD 2020), https://www.fcc.gov/document/fcc-closesheadquarters-open-window-and-changes-hand-delivery-policy.

[281] 47 CFR § 1.1200 *et seq.*

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 section 1.1206(b). In proceedings governed by section 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

126. *People with Disabilities*: 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.

127. *Availability of Documents*. Comments, reply comments, and ex parte submissions will be available via ECFS. Documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat. When the FCC Headquarters reopens to the public, these documents will also be available for public inspection during regular business hours in the FCC Reference Center, Federal Communications Commission, 45 L Street NE, Washington, DC 20554.

128. *Additional Information*. For additional information on this proceeding, contact William Wallace, Disability Rights Office, Consumer and Governmental Affairs Bureau, at 202-418-2716, or William.Wallace@fcc.gov.

VII. ORDERING CLAUSES

129. Accordingly, IT IS ORDERED that, pursuant to sections 1, 2, 3, and 716 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 153, 617, the foregoing Report and Order IS ADOPTED.

130. IT IS FURTHER ORDERED that the Report and Order SHALL BE EFFECTIVE 30 days after publication of a summary in the Federal Register.

131. IT IS FURTHER ORDERED that the date for complying with the Report and Order SHALL BE one year and 30 days after publication of a summary in the Federal Register. The Consumer and Governmental Affairs Bureau shall announce the compliance date by subsequent Public Notice.

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

133. IT IS FURTHER ORDERED that, pursuant to sections 1, 2, 3, (4)(i), (4)(j), 225, and 716 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 153, 154(i), 154(j), 225, and 617, the foregoing Notice of Proposed Rulemaking IS ADOPTED.

134. IT IS FURTHER ORDERED that, pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission's Rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments on the Notice of Proposed Rulemaking on or before 30 days after publication in the Federal Register, and reply comments on or before 60 days after publication in the Federal Register.

135. IT IS FURTHER ORDERED that Sorenson's Petition for Limited Waiver of the Privacy Screen Rule is GRANTED to the extent specified herein.

136. IT IS FURTHER ORDERED that, pursuant to sections 1, 2, 4(i), 4(j), and 225 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 154(j), and 225, the foregoing ORDER IS ADOPTED.

137. IT IS FURTHER ORDERED that, pursuant to sections 1, 2, 4(i), 4(j), and 225 of the Communications Act of 1934, as amended, and section 1.3 of the Commission's Rules, 47 CFR § 1.3, the

restrictions on use of privacy screens with Video Relay Service in section 64.604(a)(6) of the Commission's rules, 47 CFR § 64.604(a)(6), are TEMPORARILY WAIVED to the extent set forth in the Order, for one year or until the effective date of Commission action amending this provision, whichever is earlier.

138. IT IS FURTHER ORDERED that, pursuant to sections 1.4(b) and 1.103(a) of the Commission's rules, 47 CFR §§ 1.4(b) and 1.103(a), the ORDER SHALL BE EFFECTIVE upon release.

139. IT IS FURTHER ORDERED that the Commission's Office of the Secretary, Reference Information Center, SHALL SEND a copy of the Report and Order, Notice of Proposed Rulemaking, and Order, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

List of Commenters

The complete record in this proceeding is available in the Commission's Electronic Comment Filing System located at https://www.fcc.gov/ecfs/.

Commenters on the 2011 IVCS Further Notice

Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010; Amendments to the Commission's Rules Implementing Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996; Accessible Mobile Phone Options for People who are Blind, Deaf-Blind, or Have Low Vision, CG Docket No. 10-213, WT Docket No. 96-198, CG Docket No. 10-145, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14557 (2011) (*2011 IVCS Further Notice*)

Comments

Abbreviation	Commenter
ACB	American Council of the Blind
APTS	Association of Public Television Stations
AT&T	AT&T Services, Inc.
ATIS	Alliance for Telecommunications Industry Solutions
CEA	Consumer Electronics Association
	Citrix Online
CSDVRS	CSDVRS, LLC
CTA	Consumer Electronics Association
Consumer Groups	Telecommunications for the Deaf and Hard of Hearing, Inc., et al
DirecTV	DirecTV and DISH Network, LLC
ESA	Entertainment Software Association
	Harry Brown
	Larry Goldberg
	Net Coalition
ITI	Information Technology Industry Council
	Jonathan Eckrich
Michigan PSC	Michigan Public Service Corporation
	Microsoft Corporation
Motorola	Motorola Solutions, Inc.
NAB	National Association of Broadcasters
NCTA	National Cable and Telecommunications Association
RERC-IT/RERC-TA	Rehabilitation Engineering Research Centers on Universal Interface & Information Technology Access (RERC-IT) and Telecommunications Access (RERC-TA)
TDI	Telecommunications for the Deaf and Hard of Hearing, Inc.

	Tech America
TIA	Telecommunications Industry Association
Time Warner	Time Warner Cable, Inc.
T-Mobile	T-Mobile USA
	Verizon
	Verizon Wireless
	Voice on the Net Coalition
	The Walt Disney Company
Words+	Words+, Inc. and Compusult Systems, Inc.

Reply Comments

Abbreviation	Commenter
AAPD	American Association of People with Disabilities
ACA	American Cable Association
ACB	American Council of the Blind
AFB	American Federation for the Blind
AT&T	AT&T Services, Inc.
CEA	Consumer Electronics Association
CTIA	CTIA – The Wireless Association
	Cristina Hartmann
ESA	Entertainment Software Association
Hamilton Relay	Hamilton Relay, Inc. and Purple Communications, Inc.
	Gillian Green
	Microsoft Corporation
NAB	National Association of Broadcasters
NCTA	National Cable and Telecommunications Association
Nintendo	Nintendo of America, Inc.
RERC-TA	Rehabilitation Engineering Research Center on Telecommunications Access
Sprint	Sprint Nextel Corporation
TDI	Telecommunications for the Deaf and Hard of Hearing, Inc., et al
T-Mobile	T-Mobile USA
	Verizon
	Verizon Wireless

Commenters on the 2021 CVAA Refresh Public Notice

Consumer and Governmental Affairs, Media, And Wireless Telecommunications Bureaus Seek Update On Commission's Fulfillment of The Twenty-First Century Communications and Video Accessibility Act, GN Docket No. 21-140, Public Notice, 36 FCC Rcd 7108 (2021) (*2021 CVAA Refresh Public Notice*)

Comments

Abbreviation	Commenter
AAI	Alliance for Automotive Innovation
AARO	Accessibility Advocacy and Research Organizations (AARO): Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), American Association of the DeafBlind (AADB), American Deafness and Rehabilitation Association (ADARA), Association of Late-Deafened Adults (ALDA), California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH), Cerebral Palsy and Deaf Organization (CPADO), Communications Service for the Deaf (CSD), Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD), Cuesign, Inc., Deaf Seniors of America (DSA), Hearing Loss Association of America (HLAA), HEARD, National Association of the Deaf (NAD), National Black Deaf Advocates (NBD), National Cued Speech Association (NCSA), National Hispanic Latino Association of the Deaf (NHLAD), Northern Virginia Resource Center for Deaf and Hard of Hearing Persons (NVRC), Registry of Interpreters for the Deaf (RID), Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC), Rehabilitation Engineering Research Center on Universal Interface & Information Technology Access (IT-RERC), Rehabilitation Engineering Research Center for Wireless Inclusive Technologies, Georgia Institute of Technology (Wireless RERC), and RIT/NTID Center on Access Technology (CAT)
ACA Connects	America's Communications Association
ACB	American Council of the Blind
AFB	American Federation for the Blind
CTA	Consumer Technology Association
CTIA	CTIA – The Wireless Association
ITI	Information Technology Industry Council
NAB	National Association of Broadcasters
NCTA	NCTA – Internet & Television Association
NFB	National Federation of the Blind

Reply Comments

Abbreviation	Commenter
AARO	Accessibility Advocacy and Research Organizations (AARO): Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), American Association of the DeafBlind (AADB), American Deafness and Rehabilitation Association (ADARA), Association of Late-Deafened Adults (ALDA), California Coalition of Agencies Serving the Deaf and Hard of Hearing

	(CCASDHH), Cerebral Palsy and Deaf Organization (CPADO), Communications Service for the Deaf (CSD), Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD), Cuesign, Inc., Deaf Seniors of America (DSA), Hearing Loss Association of America (HLAA), HEARD, National Association of the Deaf (NAD), National Black Deaf Advocates (NBD), National Cued Speech Association (NCSA), National Hispanic Latino Association of the Deaf (NHLAD), Northern Virginia Resource Center for Deaf and Hard of Hearing Persons (NVRC), Registry of Interpreters for the Deaf (RID), Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC), Rehabilitation Engineering Research Center on Universal Interface & Information Technology Access (IT-RERC), Rehabilitation Engineering Research Center for Wireless Inclusive Technologies, Georgia Institute of Technology (Wireless RERC), and RIT/NTID Center on Access Technology (CAT)
ACA Connects	America's Communications Association
CTA	Consumer Technology Association
NAB	National Association of Broadcasters
Sorenson	Sorenson Communications, LLC
Wireless RERC	Rehabilitation Engineering Research Center for Wireless Inclusive Technologies
Zoom	Zoom Video Communications, Inc.

Commenters on the 2022 IVCS Refresh Public Notice

Consumer and Governmental Affairs Bureau Seeks to Refresh the Record on Interoperable Video Conferencing Services, CG Docket No. 10-213, DA 22-463 (Apr. 27, 2022) (*2022 IVCS Refresh Public Notice*)

Comments

Abbreviation	Commenter
AARO	Accessibility Advocacy and Research Organizations (AARO): Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), American Association of the DeafBlind (AADB), American Deafness and Rehabilitation Association (ADARA), Association of Late-Deafened Adults (ALDA), California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH), Cerebral Palsy and Deaf Organization (CPADO), Communications Service for the Deaf (CSD), Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD), Cuesign, Inc., Deaf Seniors of America (DSA), Hearing Loss Association of America (HLAA), HEARD, National Association of the Deaf (NAD), National Black Deaf Advocates (NBD), National Cued Speech Association (NCSA), National Hispanic Latino Association of the Deaf (NHLAD), Northern Virginia Resource Center for Deaf and Hard of Hearing Persons (NVRC), Registry of Interpreters for the Deaf (RID), Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC), Rehabilitation Engineering Research Center on Universal Interface & Information Technology Access (IT-RERC), Rehabilitation Engineering Research Center for Wireless Inclusive Technologies, Georgia Institute of

	Technology (Wireless RERC), and RIT/NTID Center on Access Technology (CAT)
ACB	American Council of the Blind
AFB	American Federation for the Blind
ClearCaptions	ClearCaptions, LLC
CTA	Consumer Technology Association
CTIA	CTIA – The Wireless Association
PPI	Prison Policy Initiative

Reply Comments

Abbreviation	Commenter
AARO	Accessibility Advocacy and Research Organizations (AARO): Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), American Association of the DeafBlind (AADB), American Deafness and Rehabilitation Association (ADARA), Association of Late-Deafened Adults (ALDA), California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH), Cerebral Palsy and Deaf Organization (CPADO), Communications Service for the Deaf (CSD), Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD), Cuesign, Inc., Deaf Seniors of America (DSA), Hearing Loss Association of America (HLAA), HEARD, National Association of the Deaf (NAD), National Black Deaf Advocates (NBD), National Cued Speech Association (NCSA), National Hispanic Latino Association of the Deaf (NHLAD), Northern Virginia Resource Center for Deaf and Hard of Hearing Persons (NVRC), Registry of Interpreters for the Deaf (RID), Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC), Rehabilitation Engineering Research Center on Universal Interface & Information Technology Access (IT-RERC), Rehabilitation Engineering Research Center for Wireless Inclusive Technologies, Georgia Institute of Technology (Wireless RERC), and RIT/NTID Center on Access Technology (CAT)
ACB	American Council of the Blind
AFB	American Federation for the Blind
CTA	Consumer Technology Association
CTIA	CTIA – The Wireless Association
	Richard Lorenzo Ray
Sorenson	Sorenson Communications, LLC
ZP Better Together	ZP Better Together, LLC

Commenters on Accessibility of Communications Technologies (2022 CVAA Biennial Report)

Consumer and Governmental Affairs Bureau Seeks Comment on the Accessibility of Communications Technologies for the 2022 Biennial Report Required by the Twenty-First Century Communications and Video Accessibility Act, CG Docket No. 10-213, Public Notice, DA 22-160 (CGB Feb. 16, 2022) (*Assessment Public Notice*)

Abbreviation	Commenter
ACB	American Council of the Blind
AFB	American Foundation for the Blind
CACP	Center for Advanced Communications Policy
CTA	Consumer Technology Association
CTIA	CTIA - The Wireless Association
DHH CAO	Comments by Deaf and Hard of Hearing Consumer Advocacy Organizations were filed on behalf of Telecommunications for the Deaf and Hard of Hearing, Inc., American Association of the DeafBlind, Association of Late-Deafened Adults, Center on Access Technology, Communication Service for the Deaf, Conference of Educational Administrators of Schools and Programs for the Deaf, Deaf Seniors of America, Hearing Loss Association of America, National Association of the Deaf, Northern Virginia Resource Center of Deaf and Hard of Hearing Persons, Registry of Interpreters for the Deaf, and the Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing.
HBDE	Hawaii Broadband & Digital Equity Office et al.

Commenters on the Tentative Findings for the 2022 CVAA Biennial Report to Congress

Consumer and Governmental Affairs Bureau Seeks Comment on Tentative Findings for the 2022 Twenty-First Century Communications and Video Accessibility Act Biennial Report, CG Docket No. 10-213, Public Notice, DA 22-661 (CGB June 22, 2022) (*Tentative Findings Public Notice*)

Abbreviation	Commenter
CACP	Center for Advanced Communications Policy
CTA	Consumer Technology Association
NFB	National Federation of the Blind

Commenters on the Sorenson Waiver Petition

Consumer and Governmental Affairs Bureau Seeks Comment On Sorenson Communications, LLC's Petition for a Limited Waiver of the Privacy Screen Rule for Video Relay Service, CG Docket Nos. 03-123 and 10-51, Public Notice, DA 23-28 (CGB Jan. 12, 2023)

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

APPENDIX B

Proposed Rules

The Federal Communications Commission proposes to amend 47 CFR parts 14 and 64 as follows:

PART 14 – ACCESS TO ADVANCED COMMUNICATION SERVICES AND EQUIPMENT BY PERSONS 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(a) 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*), (c)(13)(i)(C), 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.

APPENDIX C

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Notice of Proposed Rulemaking (*Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadline for comments on the *Notice* provided in the item. The Commission will send a copy of the entire *Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[2] In addition, the *Notice* and the IRFA (or summaries thereof) will be published in the Federal Register.[3]

A. Need for, and Objective of, Proposed Rules

2. In the *Notice*, the Commission proposes to amend its rules to improve the accessibility of Interoperable Video Conferencing Services (IVCS), a form of Advanced Communication Service (ACS).[4] First, the Commission proposes to amend its Part 14 rules, which govern accessibility of ACS. The Commission proposes to add performance objectives that specifically enable the accessibility of IVCS.[5] The Commission proposes that such performance objectives include the provision of (1) speech-to-text (captioning) capabilities; (2) text-to-speech capabilities; and (3) enabling of American Sign Language (ASL) interpreting. The Commission seeks comment on whether additional Part 14 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.[6]

3. Second, the Commission proposes to amend its Part 64 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.[7] 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.[8]

B. Legal Basis

4. The authority for this proposed rulemaking is contained in sections 1, 2, 3, (4)(i), (4)(j), 225, and 716 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 153, 154(i), 154(j), 225, 617.

C. Description and Estimate of the Number of Small Entities Impacted

5. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted.[9] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business,"

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

[2] *See* 5 U.S.C. § 603(a).

[3] *Id.*

[4] *See id*. § 153(1) (defining ACS); *Notice*, paras. 42-67.

[5] *See* 47 CFR Pt. 14 (accessibility of ACS).

[6] *See* 47 U.S.C. § 617(e)(1)(D) (authorized Commission to adopt technical standards as safe harbors).

[7] *See* 47 CFR § 64.604(c)(5)(iii) (establishing Interstate TRS Fund).

[8] *See Notice,* paras. 68-107.

[9] *Id*. § 603(b)(3).

"small organization," and "small governmental jurisdiction."[10] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[11] A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[12]

6. If the proposed rules are adopted, the 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.

7. *All Other Telecommunications*. This industry is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.[13] This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.[14] Providers of Internet services (e.g. dial-up ISPs) or voice over Internet protocol (VoIP) services, via client-supplied telecommunications connections are also included in this industry.[15] The SBA small business size standard for this industry classifies firms with annual receipts of $35 million or less as small.[16] U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.[17] Of those firms, 1,039 had revenue of less than $25 million, and 15 firms had annual receipts of $25 million to $49,999,999.[18] Based on this data, the Commission estimates that the majority of "All Other Telecommunications" firms can be considered small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

8. The proposed changes for which comment is sought in the *Notice*, if adopted, would impose new or modified reporting, recordkeeping or other compliance obligations on certain small entities that provide IVCS or TRS.

9. *ACS Recordkeeping.* 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

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[10] *Id*. § 601(6).

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

[12] 15 U.S.C. § 632.

[13] *See* U.S. Census Bureau, *2017 NAICS Definition*, "*517919 All Other Telecommunications,*" https://www.census.gov/naics/?input=517919&year=2017&details=517919.

[14] *Id.*

[15] *Id*.

[16] *See* 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

[17] *See* U.S. Census Bureau, *2017 Economic Census of the United States*, *Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017,* Table ID: EC1700SIZEREVFIRM, NAICS Code 517919, https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false.

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

efforts taken by such manufacturer or service provider to implement Sections 255 and 716 including: (1) information about the manufacturer's or provider's efforts to consult with individuals with disabilities; (2) descriptions of the accessibility features of its products and services; and (3) 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.[19]

10. *ACS Reporting.* 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.[20]

11. *ACS Compliance Costs.* Because of the diverse manufacturers of equipment used to provide ACS and diverse providers of ACS that may be subject to Section 716, 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 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.[21] Accordingly, the *Notice* seeks comment on the costs of compliance with these proposed rules.

12. *TRS Amendments.* The proposed amendments to the Commission's rules governing TRS are designed to facilitate the use of TRS Communications Assistants 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.

E. Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered

13. 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): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.[22]

14. The achievability factors referenced in Section D above serve to mitigate adverse impacts and reduce burdens on small entities who provide ACS. The Commission makes determinations about what is achievable for an ACS provider by giving four factors equal weight.[23] Two of these factors take into account the resources available to covered entities and may have a direct impact on small entities and their compliance obligations. The second factor allows consideration of the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or

[19] *See* 47 CFR § 14.31(a).

[20] *See id*. § 14.31(b).

[21] *See id.* § 14.3 (exemption for customized equipment or services); *id.* § 14.5 (waivers for multipurpose services and equipment); *id.* § 14.20 (general obligations subject to achievability).

[22] 5 U.S.C. § 603(c)(1)-(4).

[23] *See* 47 CFR § 14.10(b) (definition of "achievable").

service in question.[24] The third factor reviews the type of operations of the manufacturer or provider.[25] In addition, consideration of the first factor (the nature and cost of the steps needed to meet the requirements with respect to the specific equipment or service in question)[26] and the fourth factor (the extent to which the service provider or manufacturer in question offers accessibility services or equipment containing varying degrees of functionality and features, and offered at different price points)[27] would benefit all entities subject to Section 716, including small entities.

15. The existing and proposed requirements would apply equally to all IVCS providers and are necessary to ensure video conferencing is accessible to persons with disabilities. The amendments to the TRS rules will only apply to the extent a small entity TRS provider allows its users to participate in integrated IVCS calls. Any burdens on small entities will be offset by the potential for increased revenues by increasing the types of calls and minutes of use that a TRS provider handles.

16. The Notice 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 the *Notice*. The Commission expects to consider the economic impact on small entities, as identified in comments filed in response to the *Notice*, in reaching its final conclusions and taking action in this proceeding.

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

17. None.

[24] *Id*. § 14.10(b)(2).

[25] *Id*. § 14.10(b)(3).

[26] *Id*. § 14.10(b)(1).

[27] *Id*. § 14.10(b)(4).

STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL

Re: *Access to Video Conferencing,* CG Docket No. 23-161; *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, CG Docket No. 10-213; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123; *Petition of Sorenson Communications, LLC for a Limited Waiver of the Privacy Screen Rule*, Report and Order, Notice of Proposed Rulemaking, and Order (June 8, 2023)

It was a little over a decade ago that I was asked to go to the White House to attend the signing ceremony for the Twenty-First Century Communications and Video Accessibility Act. It was a gathering I will always remember. For starters, when I was there, I got to meet Stevie Wonder, who is not just a legendary musician but also a tireless champion for access to communications technology for people with disabilities. I also will never forget this day because I had the privilege of working on this historic civil rights legislation when I served as counsel on the Senate Commerce Committee. And signed, sealed, and delivered, there is in fact a signed copy of this legislation on my office wall.

The Twenty-First Century Communications and Video Accessibility Act was historic because it updated the Americans with Disabilities Act for the digital age. It put in law the fundamental idea that when technology changes, our accessibility policies need to evolve and keep pace.

When I sat in the White House that day, I never could have imagined the global pandemic that would come ten years later. It was impossible to understand then just how vulnerable we were to Covid and how dramatically a new pathogen would move our lives online. When physical doors closed and group events were cancelled during the pandemic, the virtual spaces provided by conferencing platforms—like Zoom, Teams, and WebEx—became an essential way to connect for work, school, health, and simple contact with family and friends. If you want evidence, just look right here at the Federal Communications Commission. For two years, we held our monthly open meeting—like the one we are at today—over a video conferencing platform.

While we have moved back to in-person meetings, the role video conferencing platforms play in modern life has expanded. It is one of those changes we take with us out of the pandemic. But for people with disabilities this shift has been especially challenging. That's because inconsistent accessibility features on these platforms have not always made it possible to communicate.

We are changing this today. We start by clarifying that under the Twenty-First Century Communications and Video Accessibility Act, "interoperable video conferencing services" must comply with our accessibility rules. On top of that, we propose new rules to further improve the accessibility of video conferencing services with performance objectives and also propose that our Telecommunications Relay Services fund should support the integration of relay services with video conferencing platforms.

This effort is consistent with the law. It is also aligned with the fundamental idea behind it—that when technology changes our accessibility policies need to evolve and keep pace. That principle was apparent for all at the White House signing ceremony. We give it new meaning today.

The progress we are making here would not be possible without the work of organizations like Telecommunications for the Deaf and Hard of Hearing, the National Association of the Deaf, Communication Service for the Deaf, the Hearing Loss Association of America, the American Council of the Blind, the American Foundation for the Blind, the National Federation of the Blind, Gallaudet University's Technology Access Program, and many other organizations representing those with disabilities. We are blessed to have their interest and assistance in this effort.

I want to thank the staff who made this order and rulemaking possible, including Bob Aldrich, Edyael Casaperalta, Darryl Cooper, Eliot Greenwald, Joshua Mendelsohn, Ike Ofobike, Alejandro Roark,

Michael Scott, Ross Slutsky, William David Wallace, and Dana Warrick from the Consumer and Governmental Affairs Bureau; Terry Cavanaugh, Michele Ellison, Richard Mallen, and William Richardson from the Office of General Counsel; Patrick Brogan, Rachel Kazan, Kim Makuch, Mark Montano, Michelle Schaefer, Emily Talaga, Kimberly Wild, and Andrew Wise from the Office of Economics and Analytics; Soumitra Das and Andrew Mulitz from the Office of the Managing Director; Sharon Lee from the Enforcement Bureau; and Matthew G. Baker, Kirk Burgee, Jodie Griffin, and Terri Natoli from the Wireline Competition Bureau.

STATEMENT OF COMMISSIONER GEOFFREY STARKS

Re: *Access to Video Conferencing,* CG Docket No. 23-161; *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, CG Docket No. 10-213; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123; *Petition of Sorenson Communications, LLC for a Limited Waiver of the Privacy Screen Rule*, Report and Order, Notice of Proposed Rulemaking, and Order (June 8, 2023)

I frequently speak about the necessity of a high-speed broadband connection in today's world. One of the reasons this is so critical is the rise in video conferencing. From Zoom parent-teacher conferences, to WebEx telehealth calls, to Teams work meetings, web-based video conferencing is now one of the primary ways we communicate, in both our personal and professional lives.

So we must make sure that video conferencing is accessible to everyone. The FCC is charged with ensuring that individuals who are deaf, hard of hearing, deafblind, or who have speech disabilities can communicate in a manner that is functionally equivalent to those without such disabilities. Too often, as we've heard from our Disability Advisory Committee, that isn't the case with video conferencing. Today, we take an important step to change this. We find that all services that meet Congress' definition of "interoperable video conferencing service" must be accessible to and usable by people with disabilities.

With this important finding made, we propose performance objectives these services must meet: captioning, text-to-speech, and sign language interpreting, including integration with video relay service, or VRS. I am glad to see that this item also takes on the critical issue of making sure that speech recognition systems are game-ready to transcribe the speech of all types of speakers, including those with accents.

I look forward to seeing how this record develops, and to continuing to hear from the disability community on these issues as this process moves forward. My thanks to the Commission staff who worked on this item; it has my full support.