



VIA ECFS

September 4, 2019

Marlene H. Dortch, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
TW-A325
Washington D.C. 20554

Re: Improving Video Relay Service and Direct Video Calling [CG Docket No. s 10-51 and 03-123]

Dear Ms. Dortch:

Enclosed for filing in the above-referenced Further Notice of Proposed Rulemaking are reply comments of the Rehabilitation Engineering Research Center for Wireless Inclusive Technologies (Wireless RERC).

Should you have any questions concerning this filing, please do not hesitate to contact me via email at helena.mitchell@cacp.gatech.edu.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "H Mitchell", is written over the typed name.

Helena Mitchell
Principal Investigator, Wireless RERC
Center for Advanced Communications Policy
Georgia Institute of Technology

Enclosure

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

In the Matter of)	
)	
Structure and Practices of the Video Relay Service Program)	CG Docket No. 10-51
)	
Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities)	CG Docket No. 03-123
)	
)	

REPLY COMMENTS OF
GEORGIA INSTITUTE OF TECHNOLOGY (GEORGIA TECH), CENTER FOR ADVANCED COMMUNICATIONS POLICY (CACP)
AND THE REHABILITATION ENGINEERING RESEARCH CENTER FOR WIRELESS INCLUSIVE TECHNOLOGIES (WIRELESS RERC)

Georgia Tech’s Center for Advanced Communications Policy (CACP) in collaboration with the Rehabilitation Engineering Research Center for Wireless Inclusive Technologies¹ (Wireless RERC) hereby submits reply comments in the above-referenced *Further Notice of Proposed Rulemaking* released on May 15, 2019. CACP is recognized at the state and national level as a neutral authority that monitors and assesses technical developments, identifies future options, and provides insights into related legislative and regulatory issues. CACP evaluates technological trends that can impact issues as diverse as wearable technologies, the Internet of Things, emergency communications, and communications and technology access by people with disabilities.

CACP is the home of the Wireless RERC. The Wireless RERC mission is *to integrate established wireless technologies with emerging wirelessly connected devices and services for a transformative future where individuals with disabilities achieve independence, improved quality of life, and enhanced community participation*. Over the past 18 years, subject matter experts at

¹ The Rehabilitation Engineering Research Center for Wireless Inclusive Technologies (Wireless RERC) is sponsored by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90RE5025-01). NIDILRR is within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this filing do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.

CACP and the Wireless RERC have been actively involved with research and regulatory issues concerning accessible communications technologies and services. The comments respectfully submitted below are based on subject matter expertise developed over the past 18 years.

Section C: Requiring Enterprise and Public Videophone Log-In Procedures

Reply to comments made by Telecommunications for the Deaf and Hard of Hearing, Inc., National Association of the Deaf, Association of Late-Deafened Adults, Inc., Cerebral Palsy and Deaf Organization, and the American Association of the DeafBlind (collectively, Consumer Groups); and Convo Communications, LLC. (Convo)

The Wireless RERC agrees with the above-referenced stakeholders' opposition to requiring a log-in for users of enterprise and public videophones. As asserted by the Consumer Groups, such a requirement runs counter to functional equivalency as defined by the Telecommunications Act of 1996 and the Twenty-First Century Communications and Video Accessibility Act of 2010: "The term "telecommunications relay services" means 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."² Further, Title IV of the Americans with Disabilities Act (Section 255) states the same and adds "Such term includes services that enable two-way communication between an individual who uses a TDD *or other nonvoice terminal device* [emphasis added] and an individual who does not use such a device." As such, multiple laws support functional equivalency in relay services and "other nonvoice terminal device" is appropriately technology agnostic to be inclusive of devices used for video relay services.

To the Wireless RERC's knowledge, no person without a disability in the workplace or public places such as a hospital or airport is required to log-in to use a business or public telephone. Further, as

² 47 U.S.C. § 225(a)(3), as amended by section 103 of P.L. 111-260.

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stated by the Consumer Groups, “there are some VRS users whose cognitive abilities may not be sufficient to enter their VRS telephone number on demand, much less a PIN.³” In support of this assertion, approximately 2,835,949 non-institutionalized civilians are living with comorbid hearing and cognitive disabilities.⁴ Cognitive domains impacted could include memory recall and memorizing ability. As such, the FCC’s argument that “Individuals use log-ins regularly to access smartphones, voicemail, and email, as well as work, school, and personal computers, and commercial, retail, and financial accounts. To use such devices and services, consumers routinely need to remember (or store in a retrievable location) usernames, passwords, and PINs,⁵” is based on a population of people *without* cognitive disability, and as such is a biased assumption with tenuous relevance to people living with both a hearing or speech disability *and* a cognitive disability.

Furthermore, as stated by Convo, a PIN/password requirement on public phones could adversely affect rightful access to VRS when attempting to make a call while under distress. Research on the role of stress on cognition, specifically retrieval of declarative memories (i.e., consciously stored information such as phone numbers and passwords), has shown that acute and chronic stress can impair retrieval.⁶ As detailed in Convo’s comments, stress may be experienced in situations outside of contacting emergency services that nevertheless require communications access “such as to communicate with an obstetrician when labor has begun, to reach a family member who needs to meet at the hospital, call a domestic violence advocate, to list a few examples.”⁷ The Wireless RERC would like to add that other stressful events, such as in the wake of a disaster or at the scene of an unusual event, people can and do become

³ Consumer Groups. (2019). Comments submitted in response to *Improving Video Relay Service and Direct Video Calling* [10-51; 03-123]. Washington, D.C., August 5, 2019. Available at <https://ecfsapi.fcc.gov/file/1080633036563/Consumer%20Groups%20VRS%20Structure%20FNPRM%20Comments.pdf>

⁴ Calculations based on U.S. Census Bureau, 2017 American Community Survey, Public Use Microdata Sample. Based on a sample and subject to sampling variability. Durham, NH: University of New Hampshire, Institute on Disability.

⁵ FCC. (2019). *Improving Video Relay Service and Direct Video Calling* [10-51; 03-123]. Washington, D.C., May 15, 2019.

⁶ Sandi, C. (2013). Stress and cognition. *WIREs Cogn Sci*, 4: 245-261. doi:[10.1002/wcs.1222](https://doi.org/10.1002/wcs.1222)

⁷ Convo. (2019). Comments submitted in response to *Improving Video Relay Service and Direct Video Calling* [10-51; 03-123]. Washington, D.C., August 5, 2019. Available at <https://ecfsapi.fcc.gov/file/10805121727164/Convo%20Comments%202019%20FNPRM.pdf>

(continued....)

confused in what actions to take⁸ let alone remembering a PIN.

Consumer groups state that “To the extent that the Commission continues to believe that safeguards in addition to the certification safeguards for enterprise videophones are needed, the safeguards should impose as little burden on the consumer as possible so as not to undermine functional equivalency or infringe on consumers’ privacy rights.”⁹ The Wireless RERC agrees and supports Convo’s assertion that “The best method to ensure that these public or enterprise devices are not misused remains what is already the current standard industry practice, VIs will disconnect a call when it is clear that the caller does not use or need ASL to telecommunicate.”¹⁰ Not only does this practice relieve the consumer of burden, but it is also a less costly solution, in time and capital, compared to implementing a password or PIN safeguard. Regarding the cost of time, a new VRS rule regarding safeguards that require the consumer to create a PIN or password would require consumer education and outreach that would cost time (a) to create the materials, (b) to disseminate the materials to the VRS users, and (c) for the users to comply. Not to mention the equivalent personnel hours times pay rates involved in such a consumer education campaign. On the provider side, it would cost time and money to develop and implement the technical capability to comply, and depending on the solution used, could take additional time to diffuse upgraded equipment to enterprises and public places. These conditions on both the consumer and provider side would undoubtedly result in gaps in access.

In closing, the Wireless RERC supports consumer groups and provider stakeholders’ opposition to imposing a password or PIN burden on the consumer. Given the inherent competing priorities of consumers and service providers, it is rare when they are of one accord. This singularity is exhibited in these proceedings and should not be overlooked. From both perspectives implementing a new

⁸ CACP. (2015). Optimizing ability of message receipt by people with disabilities: WEA survey findings final report. Atlanta, Georgia Institute of Technology.

⁹ Consumer Groups. (2019). Comments submitted in response to *Improving Video Relay Service and Direct Video Calling* [10-51; 03-123]. Washington, D.C., August 5, 2019. Available at <https://ecfsapi.fcc.gov/file/1080633036563/Consumer%20Groups%20VRS%20Structure%20FNPRM%20Comments.pdf>

¹⁰ Convo. (2019). Comments submitted in response to *Improving Video Relay Service and Direct Video Calling* [10-51; 03-123]. Washington, D.C., August 5, 2019. Available at <https://ecfsapi.fcc.gov/file/10805121727164/Convo%20Comments%202019%20FNPRM.pdf>

PIN/password rule for VRS would be impractical, burdensome, and costly; negatively impacting functionally equivalent and universal access to relay services.

Respectfully submitted,

A handwritten signature in blue ink that reads "S. LaForce". The signature is written in a cursive style with a large, looped "S" and a stylized "LaForce".

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Dated this 4th day of September 2019