

November 2, 2017

Via ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *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

Dear Ms. Dortch:

Sorenson Communications, LLC (“Sorenson”) urgently asks the Consumer and Governmental Affairs Bureau (“Bureau”) to suspend the April 2018 deadline for VRS providers to implement the Relay User Equipment (“RUE”) Profile for purposes of communication with the ACE App. As discussed below, implementation of the RUE Profile would be a long and complex process, yet the RUE Profile and ACE App are not available in forms suitable for implementation. VRS providers need immediate certainty as to whether they must nonetheless proceed to implement the RUE Profile for use with the ACE App or whether the requirement will be reconsidered or the deadline suspended as Sorenson requested in its Petition for Reconsideration last May.¹ All VRS providers have previously told the Commission that implementation of provider support for the ACE App—even if it were ready for testing, which it is not—should not be a high priority, compared with implementation of the SIP Profile, xCard format consumer data availability, and the ongoing changes to the TRS URD and per-call validation.²

The ACE App was conceived in the 2013 *VRS Reform Order* as a third-party application that could be used as a baseline to test VRS providers’ interoperability and also installed by members of the public on off-the-shelf devices that run on commonly available operating

¹ Sorenson Communications, LLC, Petition for Partial Reconsideration, or in the Alternative, Suspension of the RUE Implementation Deadline, CG Docket Nos. 10-51 & 03-123 (May 30, 2017) (“Petition for Reconsideration”). Sorenson’s Petition for Reconsideration included an alternative request that “the implementation deadlines should be suspended until after the RUE Profile is corrected and the certified-compliant version or versions of the ACE App are released for testing.” *Id.* at 18.

² See Letter from Gabrielle Joseph, Vice President, ASL Services Holdings, LLC et al. to Marlene Dortch, Secretary, FCC, CG Docket Nos. 10-51 & 03-123, at 3-4 (Nov. 8, 2016) (joint letter signed by representatives from ASL Global VRS, Convo, CSDVRS, Purple, and Sorenson) (“Joint VRS Providers Letter”).

systems.³ The Commission directed that the ACE App comply with the now-developed VRS Provider Interoperability Profile, allow users to place VRS and point-to-point calls, and comply with VRS 911 requirements, including allowing users to update their Registered Locations.⁴ The RUE Profile defines the interface between the ACE App and VRS provider networks—it specifies how VRS provider networks and the ACE App interoperate to complete VRS and point-to-point calls involving the ACE App.⁵ The version of the RUE Profile that VRS providers are required to implement is unfinished; it is an Internet Engineering Task Force draft that expired in January 2017, and the first page plainly states that “[i]t is inappropriate to use Internet-Drafts as reference material or to cite them other than as ‘work in progress.’”⁶

In May 2017, Sorenson filed a Petition for Reconsideration of the requirement for providers to implement the RUE Profile for purposes of communicating with the ACE App.⁷ Sorenson explained that the RUE Profile and the ACE App have serious flaws. First, the RUE Profile (which sets the parameters for the ACE App) lacks client certificate distribution and certification standards. This means that VRS Providers have no way to distinguish a tested and qualified ACE App from one that may be a threat to their networks (either because it was built by bad actors or amateur developers). Second, the ACE App, as Sorenson understands it, does

³ See *Structure and Practices of the Video Relay Service Program et al.*, CG Docket Nos. 10-51 & 03-123, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd. 8618, 8644-46 ¶¶ 53-56 (2013) (“VRS Reform Order”), *vacated in part and remanded sub nom. Sorenson Communications, Inc. v. FCC*, 765 F.3d 37 (D.C. Cir. 2014).

⁴ See *VRS Reform Order* at 8645-46 ¶¶ 55-56; 47 C.F.R. § 64.605(b)(4)(ii) (requiring that providers ensure that VRS users have “one or more methods of updating their Registered Location, including at least one option that requires use only of the iTRS access technology necessary to access the VRS or IP Relay. Any method utilized must allow a registered Internet-based TRS user to update the Registered Location at will and in a timely manner.”).

⁵ Sorenson opposes any requirement to use the RUE Profile as a standard that defines how all endpoints—not just the ACE App—interoperate with VRS providers’ backend systems. See, e.g., Comments of Sorenson Communications, LLC, CG Docket Nos. 10-51 & 03-123 (June 12, 2017).

⁶ *Interoperability Profile for Relay User Equipment*, draft-vrs-rue-dispatch-00, at 1 (work-in-progress draft RUE Profile, expired January 21, 2017) (“RUE Profile”); 47 C.F.R. § 64.621(c)(2)(i) (incorporating RUE Profile by reference into rules).

⁷ See Petition for Reconsideration. In addition to identifying technical problems with the ACE App and RUE Profile, Sorenson identified a host of legal problems with the Bureau’s adoption of the RUE Profile requirement. See, e.g., *id.* at 6-10 (discussing the lack of delegated authority to adopt a standard not developed through a voluntary consensus process), 11-13 (explaining that to be incorporated by reference into the Code of Federal Regulations, a standard must be a voluntary consensus standard, which the RUE Profile is not), and 18-20 (reasserting Sorenson’s IP rights in the RUE Profile and ACE App, which have not been properly licensed to the Commission or others).

not comply with the Commission's 911 rules. Specifically, it does not provide a method for users to update their Registered Location using only the ACE App. (In addition, in a test of a preliminary version of the ACE App made available by MITRE, the application misreported the location of the user by over 1,300 miles using the ACE App GPS (geo-location) feature.) Furthermore, there is no plan of which Sorenson is aware to create and maintain the web-based provider list of URL information, required by the RUE Profile, that would be necessary to establish communications between the ACE App and each provider.⁸ Not just Sorenson but other VRS providers, consumer groups, and engineering research centers agree that problems like these need to be corrected *before* implementation begins (or that the requirement should be eliminated altogether).⁹

The *SIP and RUE Order* that imposed the requirement to implement the RUE Profile also set an implementation timeline.¹⁰ In the *Order*, the Bureau established an implementation deadline of one year after Federal Register publication, which is April 27, 2018.¹¹ The Bureau had originally proposed that the RUE Profile requirement become effective 60 days after publication in the Federal Register,¹² but in the final rule the Bureau changed the deadline to one year "for VRS providers to complete software development, testing, and deployment to ensure that their networks are interoperable with the ACE App."¹³ In so doing, the Bureau responded to providers' explanations that they need one year "*after* there is a working ACE,"¹⁴ or a "12-

⁸ See RUE Profile § 6.1.

⁹ See Reply Comments of Convo Communications, LLC, CG Docket Nos. 03-123 & 10-51, at 3 (filed Aug. 17, 2017) ("Convo joins all other VRS providers in urging the Commission to pause with requiring the RUE Profile."); Reply Comments of ZVRS Holding Company, ZVRS, and Purple Communications, CG Docket Nos. 10-51 & 03-123, at 2 (filed Aug. 17, 2017) ("[T]he Commission should eliminate the implementation of the RUE Profile standards for ACE App communications and similar third-party endpoints."); Reply Comments of Consumer Groups, CG Docket Nos. 10-51 & 03-123 (filed Aug. 17, 2017) (agreeing that an implementation delay is appropriate to overcome technical and functional flaws in the RUE Profile and ACE App) ("Consumer and Engineering Reply").

¹⁰ See *Structure and Practices of the Video Relay Service Program et al.*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd. 687 (Cons. & Gov'tl Affs. Bur. 2017) ("*SIP and RUE Order*").

¹¹ 47 C.F.R. § 64.621(a)(3).

¹² See *Structure and Practices of the Video Relay Service Program et al.*, Further Notice of Proposed Rulemaking, 31 FCC Rcd. 8777, 8780 ¶ 8 (Cons. & Gov'tl Affs. Bur. 2016).

¹³ See *Structure and Practices of the Video Relay Service Program et al.*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd. 687, 692 ¶ 14 (Cons. & Gov'tl Affs. Bur. 2017).

¹⁴ *Id.*, quoting Joint VRS Providers Letter at 3 (joint letter signed by representatives from ASL Global VRS, Convo, CSDVRS, Purple, and Sorenson, stating that "[p]roviders estimate that modifying their networks will require a multimillion dollar investment from each company

month—at a minimum—compliance timeframe . . . *after* the final ACE software is delivered and made available to providers for testing.”¹⁵ The Bureau stated its understanding (in January 2017) that “the ACE App will be released in the near future in a version suitable for interoperability testing,” and set the compliance deadline as one year after Federal Register publication.

In effect, the Bureau provided fifteen months for implementation, believing that the ACE App was about to be released. But we are now in month ten of the implementation period, and we appear to be no closer than in January 2017 to having an ACE App that is ready for implementation and testing and a corrected RUE Profile.

The problems that Sorenson identified in its Petition more than five months ago have not been addressed. There is no working ACE App ready for testing. The RUE Profile remains insecure and incomplete. The ACE App, as best Sorenson knows, does not comply with the 911 rules. Indeed, Sorenson’s understanding is that the ACE App does not even pass interoperability testing with the SIP Profile, which all VRS providers must finish implementing by December 20, 2017, to further improve interoperability among themselves.¹⁶ The ACE App does not make use of client certificates to allow VRS providers to authenticate calls and distinguish between legitimate calls and attacks on their systems. The ACE App is not ready for provider interoperability assessments and is not ready for use by the public. In a recent call with MITRE, MITRE reported that it plans to publish an update to the ACE App the first week of November; it is unknown what state the App will be in at that time.

As providers said before, they need at least twelve months to implement the RUE Profile in their backend systems once there is a working ACE App that complies with a corrected RUE Profile, the SIP Profile, and the Commission’s rules. This is not an unusually long time—Sorenson generally takes twelve months or longer to develop and test new updates to the backend systems that would need to be updated for the ACE App. There are multiple complex and time-consuming steps for a change of this magnitude. Providers would need to identify the affected systems, identify what specific changes need to be made based on the finalized RUE Profile, develop client certification processes, ensure that they can support the 911 location technology¹⁷ used by a compliant version of the ACE App, develop configuration websites,

(which would require exogenous-cost adjustments) and would take more than a year of intensive work from their engineering departments after there is a working ACE”). The providers did not propose a one-year implementation period. Instead, they stated that the Commission “could also use the interim period to assess whether the ACE endpoint is still needed to provide an interoperability benchmark or whether interoperability has been adequately addressed through other means.” Joint VRS Providers Letter.

¹⁵ Comments of ZVRS on the VRS Interoperability FNPRM, CG Docket Nos. 10-51 & 03-123, at 6 (filed Sept. 14, 2016).

¹⁶ See 47 C.F.R. § 64.621(b)(1).

¹⁷ The RUE Profile calls for the ACE App to comply with the location identification requirements of RFC 6881, a separate IETF standard regarding emergency calling, and

develop ACE-specific access to their SIP infrastructures, and much more. After this initial development is done, providers would need to engage in internal testing. Sorenson, at least, would perform tests to ensure that all appropriate features operate correctly and that they are commercially scalable and reliable.

During the process, Sorenson would also engage with MITRE to identify any ACE App bugs and get fixes from MITRE in a timely manner. This would necessarily include testing the ACE App's 911 calling capability, which we already know is not providing correct location information. Equally, it is unclear whether MITRE is contracted and staffed to quickly fix ACE App problems. In Sorenson's experience, the process of developing, implementing, and testing a significant new feature consistent with its quality standards takes from nine to twelve months, including time between tests to make adjustments to software and equipment. It is thus unrealistic to complete implementation by April 2018 given that, today, there is no working ACE App, no finished RUE Profile, and not even a timeline for a working, bug-free ACE App that complies with a final RUE Profile. Moreover, the Commission expected that the ACE App would be available on the major operating platforms; at this point, Sorenson understands that the only version that has been updated is a Windows version. It is unclear what the timing or expectations are, if any, for development and testing of the ACE App for macOS, iOS, or Android.

While Sorenson respects the Commission's rules and deadlines, the April 2018 deadline to implement the RUE Profile for communication with the ACE App is no longer feasible. Indeed, no one is defending the current implementation deadline. The other VRS providers have come forward to request relief, not to press for speedy implementation as an aid to competition.¹⁸ And the consumer groups and engineering research institutions agree that genuine problems in the ACE App and RUE Profile need to be corrected before providers are required to comply.¹⁹

Sorenson's preference would be for the Bureau immediately to grant its Petition for Reconsideration of the requirement to implement the RUE Profile. But at a minimum, Sorenson urges the Bureau at the soonest possible date to suspend the April 2018 implementation deadline until further notice. If the deadline is ever re-instated, it should be set at a date that is no less than one year from the availability of a working ACE App that is fully compliant with a corrected RUE Profile and the Commission's rules, and after the Commission has completed a cost-benefit analysis to assess whether the ACE App and RUE Profile endeavor are worth the

requires VRS providers to accept and properly handle those calls. *See* RUE Profile § 11.4. RFC 6881 requires endpoints (here, the ACE App) to obtain their current location using GPS technology or by reference to the communications network they are using. *See Best Current Practice for Communications Services in Support of Emergency Calling*, Internet Engineering Task Force, RFC 6881 §§ 3, 6.2 (Mar. 2013). Sorenson notes that these requirements go beyond even what the Commission requires.

¹⁸ *See supra* note 9.

¹⁹ *See* Consumer and Engineering Reply at 7.

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costs to the industry, consumers, and the TRS Fund given the interoperability improvements the industry has made since 2013.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'John T. Nakahata', with a stylized, cursive script.

John T. Nakahata

Julie A. Veach

Counsel to Sorenson Communications, LLC

cc: Nicholas Degani
Zenji Nakazawa
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