

January 8, 2015

Ex Parte

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

**Re: Ex parte presentation by VRS Providers on U.S. VRS SIP Profile Report—
*Telecommunications Relay Services and Speech-to-Speech Services for Individuals
with Hearing and Speech Disabilities*, CG Docket No. 03-123; *Structure and
Practices of the Video Relay Service Program*, CG Docket No. 10-51**

Dear Ms. Dortch:

On January 6, 2015, Gabrielle Joseph and Jose Pereira of ASL Services Holdings LLC (“ASL/Global”) and Andrew Isar, Miller Isar, Inc., on behalf of ASL/Global; Jeremy Jack, Hancock, Jahn, Lee & Puckett, LLC d/b/a Communication Axxess Ability Group (“CAAG”); Jeff Rosen and Joshua Shaffner of Convo Communications, LLC (“Convo”); Lydia Runnels, Mike Strecker, and Megan Lawler of CSDVRS, LLC (“CSDVRS”); John Martin, John Goodman, Tony LaRosa, and Lydia Yomogida of Purple Communications, Inc. (“Purple”); and Grant Beckmann, Scot Brooksby, and Michael Maddix of Sorenson Communications, Inc. (“Sorenson”) and John Nakahata, Harris, Wiltshire & Grannis LLP, on behalf of Sorenson, (collectively, the “VRS Providers” or “Providers”), participated in a meeting (either in person or by phone) with FCC attendees Robert Aldrich, Jonathan Chambers, Eliot Greenwald, Gregory Hlibok, Richard Hovey, Diane Mason, David Schmidt, Karen Peltz Strauss, and Caitlin Vogus.

The VRS Providers requested the meeting to report on the substantial progress made in developing proposed VRS interoperability standards and to present a proposed schedule to transition to the U.S. VRS SIP Interoperability Profile (the “SIP profile”). To facilitate implementation of VRS interoperability pursuant to the SIP profile, the VRS Providers asked the Commission to:

1. Direct Neustar to change the iTRS VRS documentation expressly to allow the new SIP uniform resource indicators (“URIs”).
2. Clarify that providers may use SIP URIs that use provider domain names for routing servers instead of IP addresses.

In addition, we noted that although URI dialing is not required under FCC rules, after the SIP profile has been fully implemented, VRS providers will discontinue dialing by URI and only use ten-digit E.164 number dialing. We also informed the staff what providers planned to follow the proposed testing and implementation schedule we outlined in order to enable transition to the SIP profile.

The Commission previously noted the importance of developing voluntary, consensus-based interoperability standards as a means for meeting the Commission’s policy objectives for

VRS.¹ Consistent with this objective and to improve interoperability, VRS providers agreed to work together to develop an industry-consensus interoperability standard. Prior to this effort, VRS providers in the U.S. had developed current interoperability solutions based on the H.323 standard, but encountered multiple issues. Based on an analysis of numerous factors, the VRS providers agreed that the SIP profile was the better supported platform on which to base interoperability standards. For one thing, it was clear that the SIP family of standards was becoming the dominant standard for Internet-based video and audio communications. This was evidenced in part by significantly more commercial support for SIP infrastructure than for H.323. In fact, technology providers continue to drop or limit support for H.323 components. Moreover, most VRS providers already had implemented internal SIP infrastructure and were using SIP-to-H.323 gateways to achieve interoperability. However, VRS providers also recognized that SIP-to-H.323 gateways limit functionality and restrict interoperability only to features supported by the gateway. In addition, the providers concluded that use of the SIP profile will not only support all of today's features but also set the foundation for future work.

VRS providers began working with the VRS Task Group of the SIP Forum in mid-2013 to develop voluntary, consensus-based standards and continued this work until mid-2014. As the SIP Forum's efforts continued, the need for a U.S. VRS SIP profile VRS providers became apparent. For one thing, it was difficult to get consistent U.S. VRS provider participation due to feature creep that was not relevant to near-term U.S. objectives, as defined by the VRS Order. Moreover, the Task Group was not on schedule to complete work on a SIP profile that could be implemented by U.S. VRS providers in a timely manner. There also was no voting mechanism in place to resolve issues and close topics so that the standard setting process could move forward to resolution. To remedy these issues and advance the process, the U.S. VRS providers decided in June 2014 to transition their efforts to a smaller side committee of the VRS Task Force. This move allowed the providers to specifically target existing U.S. VRS functionality and develop a shorter implementation timeline. This also enabled the U.S. VRS provider's efforts to be integrated with the existing semi-annual U.S. VRS SIP interoperability events, which occur in May and November. In addition, the U.S. VRS providers decided to hold regular calls and instituted a one-vote-per-provider mechanism to resolve issues and close topics.

As a result, all six VRS providers have worked cooperatively since last June to develop U.S. interoperability standards for VRS. Beginning last June, engineering teams from each VRS provider participated in bi-weekly calls to document existing functionality. Soon thereafter, from September through December, engineering teams engaged in weekly calls. Providers have also taken turns hosting face-to-face meetings, with the Spring 2015 meeting to be hosted by Convo and the Fall 2015 meeting to be hosted by ASL/Global. These efforts culminated in the posting of the U.S. VRS SIP Interoperability Profile, which was posted to the SIP Forum on December 29, 2014.²

¹ *Structure and Practices of the Video Relay Service Program, Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Report and Order and Further Notice of Proposed Rulemaking, FCC 13-82, 28 FCC Rcd. 8618, 8642 ¶ 47 (2013) (“VRS Structural Reform Order”).

² SIP Forum Video Relay Service (VRS) Interoperability Profile, SIP Forum Document

The purpose of adopting and implementing the SIP profile is to establish a baseline for interoperability. Providers will continue to have the ability to innovate on their endpoints, back-ends, and call management systems for continuing competition, differentiation, and invention.

Importantly, the VRS Providers understand that technology and features will continue to evolve and are committed to engage in ongoing discussions to resolve and find solutions to future interoperability challenges. Such interactions will occur on three levels. First, the providers are committed to ad hoc interoperability testing as the need arises. Second, telephone calls among providers to discuss interoperability issues will continue. Third, the VRS Providers are committed to continue to have engineering teams meet at interoperability forums every six months. The VRS Providers believe that such efforts will ensure ongoing interoperability among providers.

The VRS Providers' engineering teams have worked cooperatively to develop the following transition schedule to ensure a smooth transition to the SIP profile to facilitate interoperability. The testing schedule could be expedited or slowed down based on quality of service results and the nature and ability to fix any glitches that arise. The engineering teams will continue to have calls on a biweekly basis to discuss transition schedule implementation.

Transition Timeframe (subject to test results)

Alpha testing:

- Start Spring 2015 (in conjunction with VRS May Interoperability event)
- Limit to 100-200 users, consisting of company employees using company phones and willing to participate in testing with the understanding that issues may occur
- Alpha test phones will have both SIP and H.323 URIs listed in iTRS database
- Test duration: 1-3 months
- Each provider will share problem reports and interoperability problems
- Weekly provider technical calls will occur to resolve problems

Beta testing:

- Start Summer 2015
- Limit to 400-600 users initially; may expand to thousands depending on test results
- Users consist of all Alpha users plus selected end users who opt-in to participate in Beta test
- Beta test phones will have both SIP & H.323 URIs listed in iTRS database
- Provider specific collection of glitches to capture problems from users
- Users who decide not to participate will be rolled back

- Weekly provider technical calls will occur to resolve problems

Launch:

- Winter 2015 (in conjunction with VRS November Interoperability event)
- Includes all users, but implementation will be staged with conversions occurring at a rate of several thousand per week
- Launch will be paused to remediate or be rolled back if problems persist and cannot be resolved
- Launch users will only have SIP URIs listed in iTRS database
- January 1, 2016 target for fully implemented transition to SIP profile

Future (beyond 2015):

- Interoperability testing will be ongoing and continue among providers
- Interoperability testing with neutral platform
- Interoperability testing with reference endpoint

Explanation of Requests for Commission Action

1. ***Change iTRS VRS documentation.*** The current documentation is restricted to H.323 standards. For compliance purposes, the documentation must be changed to reflect the SIP Interoperability Profile.

2. ***Using SIP URIs that Use Provider Domain Names for Routing Servers.*** When the SIP profile is fully implemented, user domain names will need to be published in the iTRS database instead of user IP addresses. There are three advantages to using domain names. First, using domain names enables providers to switch service centers for maintenance and incident mitigation by changing DNS entries. Second, using domain names allows providers to more easily identify the provider of a peer-to-peer call to work on interoperability problems. Third, use of domain names is an important part of modern communications technology. It enables DNS load balancing and advance routing based on SRV records.

The VRS Providers are seeking IETF approval for adding a new “SIP Call-Info header field” for signaling IP address users. The providers will also use a provider-to-provider signaling interface to allow providers to restrict traffic to known providers (and avoid spamming or scanning connections).

Other Aspects of SIP Transition

3. ***Using 10-digit numbers dialing.*** Because there is uniform support for 10-digit dialing, security is improved by ensuring VRS calls come from registered users of a VRS provider, which can be verified using 10-digit dialing. In contrast, URL dialing makes verification and security more difficult. No uniform support exists for legacy URI dialing or for dialing IP addresses. In addition, providers increasingly get random calls from IP addresses, which make it difficult to verify a registered user who is entitled to receive calls.

4. ***SIP transition schedule.*** Under the test protocol, transition to the SIP profile will take approximately one year. In the *VRS Structural Reform Order*, the Commission urged the industry to develop interoperability standards and to adhere to a proposed schedule.³ The VRS Providers accepted that challenge and, after much cooperative work, have delivered. Given the critical importance of this issue and to ensure timely implementation of full VRS interoperability, providers intend to proceed with the SIP transition schedule as outlined, with the understanding that it is subject to change based on quality of service issues or glitches that may arise.

The VRS Providers are proud of the progress made on working cooperatively and note that their efforts occurred before and without the benefit of the still-to-be-developed reference platform. The Providers look forward to working with Commission staff on obtaining approval for this plan and fully implementing VRS interoperability.

Respectfully submitted,

ASL Holdings

/s/ Gabrielle Joseph
Gabrielle Joseph
Vice President
ASL Holdings LLC

CAAG

/s/ Jeremy Jack
Jeremy Jack
Vice President
Communication Access Ability Group

Convo

/s/ Jeff Rosen
Jeff Rosen
General Counsel
Convo Communications, LLC

CSDVRS

/s/ Michael Strecker
Michael Strecker, Director, Corporate
Compliance
CSDVRS, LLC

Purple

/s/ John Goodman
John Goodman
Chief Legal Officer
Purple Communications, Inc.

Sorenson

/s/ Michael Maddix
Michael Maddix
Director, Government and Regulatory Affairs
Sorenson Communications, Inc.

cc (by email):

Robert Aldrich
Jonathan Chambers
Eliot Greenwald

Gregory Hlibok
Richard Hovey
Diane Mason

David Schmidt
Karen Peltz Strauss
Caitlin Vogus

³ *VRS Structural Reform Order*, 28 FCC Rcd. at 8642-44 ¶¶ 47-52.