PUBLIC NOTICE

Federal Communications Commission
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FCC ANNOUNCES RELEASE OF AN AUTO CALL ROUTING IMPLEMENTATION GUIDE "COOKBOOK" FOR DIRECT VIDEO COMMUNICATIONS

By this notice, the Federal Communications Commission (FCC or Commission) announces the release of an "Auto Call Routing (ACR) Cookbook" that provides guidance on how to enable the provision of direct video calling to call center agents in government agencies and private entities by people who communicate in American Sign Language (ASL). The publication of this ACR Cookbook is the result of a research and development effort in accordance with the Commission's objectives outlined in the *VRS Reform Order*.[1] ACR allows consumers who communicate in ASL to place a video call to a government agency or private entity with a publicly listed telephone number.

In January 2015, the FCC entered into a contract with the MITRE Corporation[2] to establish a strategic research and development capability, which includes the following goals: (1) conducting independent engineering assessments that assess and promote TRS that is functionally equivalent to voice telephone services; (2) improving TRS efficiency and availability; (3) exploring solutions for direct communication between people with communication disabilities and other telephone users; and (4) evaluating the effectiveness, efficiency and consumer response to current and future approaches for delivering TRS.

Thousands of deaf and hard of hearing individuals who communicate in ASL use third-party communication assistants over video relay services (VRS) to place telephone calls to customer assistance divisions of government agencies and businesses in the United States every day. To improve these interactions, the FCC implemented a direct video communications (DVC) solution, launching an ASL Consumer Support Line in June 2014, the first of its kind in the federal government. This ASL line allows users to make video calls directly to the FCC to obtain assistance and information about issues under the FCC's jurisdiction. Our analysis of calls received reveals a very high consumer satisfaction rate. As a consequence, other government agencies have expressed an interest in launching DVC capability for their call centers as well.

The FCC tasked MITRE to develop an ACR proof-of-concept, or prototype, for the provision of direct video calling to call centers that support multiple call agents. The ACR project included identifying relevant open source technologies, protocols, and procedures that: (1) enable a person who is deaf or hard of hearing to call directly into the agency using the same customer service number utilized for standard

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[1] *Structure and Practices of the Video Relay Service Program, Report and Order and Further Notice of Proposed Rulemaking, Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 10-51, 03-123, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd 8618, 8630, ¶ 22 (2013) (*VRS Reform Order*). In the *VRS Reform Order*, the Commission directed the Managing Director, in consultation with the relevant offices and bureaus, to determine how to best structure and fund research designed to further the Commission's multiple goals of ensuring that telecommunications relay service (TRS) is functionally equivalent to voice telephone services and improving the efficiency and availability of TRS.

[2] The MITRE Corporation is a private, not-for-profit corporation that operates federally funded research and development centers (FFRDCs).

voice-only calls and be routed automatically to an ASL-trained agent to handle the user's call; and (2) enable the agency to manage a queue of multiple incoming calls routed to multiple ASL-trained agents and to support the successful handling of those calls. MITRE has demonstrated this capability for the FCC and other government agencies.

For the ACR prototype, MITRE developed and tested a core call center PBX function – auto call routing based on agent queues, incoming dialed number, and call management. MITRE also built an Integrated ASL Video Response (IAVR) capability. In addition, MITRE researched and edited configuration files, scripted the dial plan for incoming call flow, and tested currently available open source video telephony and call management technologies needed to support direct call center response and queue management for simultaneous direct incoming video calls. These direct calls originate from people who are deaf and hard of hearing using a standard videophone with a real-time video connection and are routed to an ASL-trained agent within an organization's call center for call handling. MITRE has been testing multiple vendor and open source products across current platforms to include computer based video, desktop integration, and smartphones over a secure wireless hotspot, and traditional secure network connections. MITRE is also testing the core ACR functions with provider end point video phones, open source softphones, commercially licensed softphones, and desktop telephony applications.

THE "ACR COOKBOOK" – ACR IMPLEMENTATION GUIDE

To support this capability, MITRE published an ACR technical implementation guide to provide guidance and assistance to developer support and technical teams with the setup, configuration, and testing of the ACR proof of concept (Attachment A). Specific configuration sections are included for the senior systems engineer(s) to identify core network, programming, and computing infrastructure skills, experience, and competencies needed for the implementation team.

The ACR Cookbook's detailed instructions address the configuration requirements of an open source Session Initiation Protocol (SIP) PBX using the MITRE-developed Direct Video Call ACR Proof of Concept. Specifically, the cookbook facilitates replicating the auto-routing configuration, which enables a direct video call from a consumer's device to an ASL-proficient customer service representative's desktop. The ACR Cookbook also describes how to integrate the ACR prototype with agency's current call center workflow to provide an independent, on-demand service.

The ACR Cookbook provides the context and technical descriptions of the components (open source, off the shelf, licensed, or uniquely built and configured) to support the on-demand service. It includes examples of setup and configuration steps, scripts, programs, and command sequences, which support a specific set of use cases and tests. The Cookbook also supplies documentation for implementing the recommended approach successfully within the agency call center.

Current and future versions of the ACR Cookbook will be available to the general public as a downloadable file for use by commercial entities and open source forums from www.TRS-COE.org, and future revisions will be announced on this website only. For general information about direct video communications, visit: www.fcc.gov/encyclopedia/direct-video-communications.

ACCESSIBLE FORMATS
To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), please send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

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