Feasibility Study on Providing Video Relay Services and Meeting the Needs of DeafBlind Users of ASL/LSQ

Canadian Administrator of
Video Relay Service Inc.

Summary Report

July 2024

CAV·ACS

TOUCH SEEDS

eversa

ACKNOWLEDGEMENT

It has been a pleasure to complete this external review for the Canadian Administrator of VRS (CAV). The team would like to thank all the stakeholders, including DeafBlind organizations, sign language interpreting agencies, and Deaf experts, for their active participation in this process. It is their perspectives that will help the Canadian Administrator of VRS shape the future of DeafBlind VRS services offerings.

A special thanks to Nancy Lynn Dillon, Jason Herbers and Bryen Yunashko for several insights they brought to the feasibility study. Appreciation goes to Jeffrey Beatty who we drew upon for wisdom in Canada's telecommunications fiscal responsibility regulatory framework. Thank you also to Paula Bath and Carmelle Cachero, of the CAV, for guiding this research project.

We wish the Canadian Administrator of VRS every success in addressing the recommendations stemming from this feasibility study and supporting the needs of the ASL and LSQ DeafBlind communities in Canada.

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Land acknowledgement
"From coast to coast to coast, we acknowledge the ancestral and unceded territory of all the First Nations, Inuit, and Métis peoples that call this land home."

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BACKGROUND

BACKGROUND

Eversa and TouchSeeds have been retained by the Canadian Administrator of VRS (“CAV”) to conduct a feasibility study on providing VRS and meeting the needs of DeafBlind users of ASL/LSQ.

Designed in line with CAV’s committment to gain a better understanding of the unique VRS needs of DeafBlind consumers, the ultimate goal of the study was to determine the feasibility of VRS services offerings for DeafBlind users and formulate recommendations where appropriate.

This report outlines key information about the DeafBlind experience, our methodology, key findings, international comparison highlights, recommendations, and optimal conditions.

UNDERSTANDING THE DEAFBLIND EXPERIENCE

Gaining a deeper understanding of the daily experiences of DeafBlind individuals is not only crucial for informing priorities regarding accessible VRS offerings for them, but also for ensuring a DeafBlind-centric customer experience and acceptance among DeafBlind communities of CAV's efforts in this regard.

With this in mind, this section offers insights into various aspects of the DeafBlind experience, such as the lifelong transition and their identity, the 'low vision' spectrum, the marginalizing impacts of technological advancements and the DeafBlind interpreting curriculum.

Furthermore, nuances are brought forward regarding DeafBlind individuals' journeys through DeafBlindhood.

The Lifelong Transition: An Inherent Part of DeafBlind Identity

A Conundrum: Situating DeafBlind in the 'Low Vision' Spectrum

The Marginalizing Impact of Technological Advancements

Lagging Behind: The Invisible DeafBlind Interpreting Curriculum

UNDERSTANDING THE DEAFBLIND EXPERIENCE

DeafBlind communities are diverse in vision conditions and coping methods, with a central challenge being the transition from partial to complete blindness. This transition involves emotional stages similar to grieving, affecting various aspects of life, from adjusting physical activities to altering communication methods. Embracing the DeafBlind identity means integrating these changes and losses into daily life, navigating a deeply personal journey of adaptation.

In contrast, Deaf identity remains stable, focused on vision and language rather than changing physical conditions. As a result, these abilities taken for granted to last a lifetime establish simple accessibility standards. Understanding the role of transition in DeafBlind lives highlights the need for tailored accessibility solutions.

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UNDERSTANDING THE DEAFBLIND EXPERIENCE

The low vision spectrum includes individuals who might need corrective lenses but can still drive, as well as those who are legally blind and cannot drive. Those with residual vision often face difficulties in engaging with sign language, such as squinting or adjusting their distance from conversation partners. Addressing accessibility for low vision is crucial, but it doesn't fully cover the challenges of DeafBlind communities.

"DeafBlind" reflects the combination of the Deaf and Blind identities, emphasizing that these conditions are intertwined rather than separate.

The team opted for the term "DeafBlind" over "Deaf-Blind" to emphasize the integrated experience of DeafBlind individuals and to avoid the misconception that addressing only one condition can resolve the challenges they face.

The Lifelong Transition: An Inherent Part of DeafBlind Identity

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UNDERSTANDING THE DEAFBLIND EXPERIENCE

Before VRS, Deaf and DeafBlind individuals had similar access to telecommunications through written correspondence and TTY devices. Deaf communities pushed for better communication tools and relay services, which improved interactions with hearing people. DeafBlind individuals adapted TTY devices with braille equipment to meet their needs.

Video communication, while beneficial for Deaf individuals, created challenges for DeafBlind consumers, as it relied heavily on visual content. This shift led to a sense of exclusion and highlighted a technological gap, described by DeafBlind author John Lee Clark as "Distantism," where DeafBlind needs are inadequately addressed by current technologies.

The Lifelong Transition: An Inherent Part of DeafBlind Identity

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Lagging Behind: The Invisible DeafBlind Interpreting Curriculum

UNDERSTANDING THE DEAFBLIND EXPERIENCE

Initially, the sign language interpreting field relied on untrained volunteers, often family or friends, reinforcing the misconception that Deaf individuals needed external help to manage their needs. This approach also affected DeafBlind interpreting. Despite advancements in professional training and certification, DeafBlind interpreting has lagged behind in most programs. This is because content related to DeafBlind interpreting is often placed at the end of the curricula designed to teach sign language or Deaf culture.

In Canada, George Brown College is the first and only Canadian college to provide a DeafBlind Intervenor certificate program.

This ongoing gap underscores the need for better training and more accessible VRS for DeafBlind users.

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02

PROFILE OF DEAFBLIND CONSUMERS

PROFILE OF DEAFBLIND CONSUMERS

In this section, we provide an overview of the profile of DeafBlind users, covering their communication preferences, demographics, VRS users and potential users, and commonly used accessible technologies.

Communication Preferences

DeafBlind Demographics in Canada

DeafBlind VRS Users and Potential Users

Commonly Used Accessible Technologies

PROFILE OF DEAFBLIND CONSUMERS

Communication preferences among DeafBlind individuals vary, reflecting the diversity within their communities in terms of experiences, needs, and expectations. For the purposes of this study, our focus will be on DeafBlind individuals who primarily communicate in either American Sign Language (ASL) or langue des signes québécoise (LSQ).

The CDBC.VRS report (2022) revealed that DeafBlind participants' communication preferences are as follows:

- 25% of them use tactile ASL, tactile LSQ, or protactile.
- 43% of them use ASL and LSQ
- 58% of them Deaf Interpreters
- 69% of them use communication facilitators.

PROFILE OF DEAFBLIND CONSUMERS

Gathering meaningful and relevant statistics on the DeafBlind population within the context of this study is a formidable challenge. The difficulty stems from variations in defining DeafBlindness, influenced by various discourse, such as medical, legal, or cultural perspectives, and the inclusion of a spectrum of vision loss levels.

Extrapolating from data provided by the U.S. Federal Communications Commission's National Deaf-Blind Equipment Distribution Program (NDBEDP), which assessed 12,000 DeafBlind and low vision consumers, this method suggests there may be approximately 1,450 DeafBlind and low vision consumers in Canada, adjusted for the population size of both countries.

Communication Preferences

DeafBlind Demographics in Canada

DeafBlind VRS Users and Potential Users

Commonly Used Accessible Technologies

PROFILE OF DEAFBLIND CONSUMERS

As of 2023, there were 9,823 VRS users across Canada, with 7,207 ASL users (74%) and 2,585 LSQ users (26%).

According to CAV's 2023 Survey Summary, a total of 933 respondents, or 17% of registered Canada VRS users are reported to have low vision (CAV, 2024). Although these numbers clearly show that there is a prevalent number of VRS users who reported having low vision, it is crucial to bear in mind that the term 'low vision' is very broad and loosely defined as meaning may differ from one individual to another.

The survey results indicates that there are 1,670 registered users with 'low vision'. It is important to note, however, that this figure includes more than just DeafBlind users. Additionally, it does not account for potential DeafBlind users who may have not registered for the service.

Communication Preferences

DeafBlind Demographics in Canada

DeafBlind VRS Users and Potential Users

Commonly Used Accessible Technologies

PROFILE OF DEAFBLIND CONSUMERS

There are several accessible technologies commonly used by DeafBlind individuals, including ZoomText, magnifiers, screen readers, braille devices, and vibrating pagers.

In the realm of accessible telecommunications technologies, some, like TTY, are already accessible. Others, such as real-time text (RTT), need to be integrated into platforms to ensure full accessibility.

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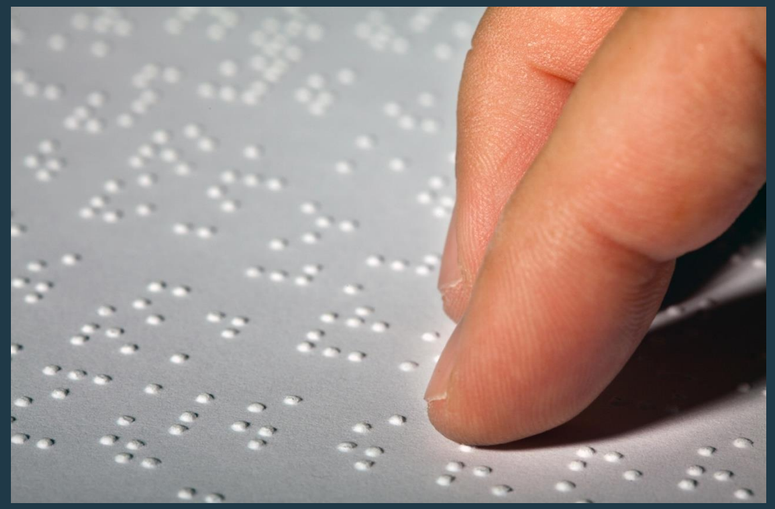
METHODOLOGY



METHODOLOGY

This section details the findings on DeafBlind users' needs and experiences with Canada VRS. It aims to document the challenges and positive aspects of their interactions with the service to identify gaps and address their needs.

To gather data, we employed a threefold combined qualitative research methodology. It enabled us to proceed with data triangulation, involving information collected through three complementary methods:

- Document analysis
- Semi-directed interviews, and
- User testing.

Data triangulation allowed us to reach convergence and validation of findings, thereby reducing bias and ensuring reliability.

Documentary Analysis

Semi-directed Interviews

User Testing

METHODOLOGY

We started with the documentary analysis method, which involved the review of the interventions in Canadian Radio-television and Telecommunications Commission (CRTC) proceedings related to VRS.

The interventions were first screened based on the main qualifying criteria, which is the presence of DeafBlind-related content. Then, they were narrowed down to documents that contain DeafBlind users' perspectives about their experience with Canada VRS.

During the analysis process, several themes emerged, informing us of DeafBlind users' experience with Canada VRS.

The findings and the gaps that emerged from this method informed us of the questions that needed to be asked and what needed to be observed.

Documentary Analysis

Semi-directed Interviews

User Testing

METHODOLOGY

Semi-directed interviews were then conducted with the goal to document DeafBlind users’ experiences with Canada VRS and their needs according to the current state of the service. Given the objectives of this study, three main categories of subjects were identified: key informants, DeafBlind users, and subject matter experts (SME).

To accommodate the diverse communication needs of DeafBlind participants across Canada's vast geography, interviews were offered in both in-person and virtual formats, with some sessions using communication facilitators. Summaries were reviewed and approved by participants, and personal information was anonymized for confidentiality. Data analysis was conducted using thematic analysis, with a thorough, inductive review of the data and cross-checking to ensure reliability and minimize bias.

Documentary Analysis

Semi-directed Interviews

User Testing

METHODOLOGY

To complement the documentary analysis and semi-directed interviews, we conducted user tests of Canada VRS.

For this, we called on an American DeafBlind VRS expert, who tested the platform to identify its strengths and gaps.

Documentary Analysis

Semi-directed Interviews

User Testing

04

FINDINGS

FINDINGS

Several insights emerged from each of the data collection methods regarding DeafBlind current and potential users' experience with Canada VRS.

The findings that emerged from the proceedings are grouped as follows:

- Technology
- People
- Governance and Management
- Education and Outreach
- Communication Facilitators, and
- Equipment Distribution.

CRTC's NOC 2021-102 Interventions from DeafBlind Stakeholders Groups

DeafBlind Stakeholders Groups' Input

Results of the User Testing

VRS Needs of DeafBlind People in Canada: Proposed Solutions

FINDINGS

The CRTC’s NOC 2021-102 interventions from DeafBlind stakeholders groups revealed several gaps in VRS service offerings for DeafBlind users including:

- Incompatibility of the video technology platform (VTP) with accessibility devices such as braille readers.
- A counterintuitive user interface.
- An uncustomizable and non-personalizable platform.
- Variable experiences with video interpreters (VIs) and customer support representatives (CSRs) due to a lack of DeafBlind cultural awareness and attitudinal barriers.
- Absence of communication facilitators.
- Ineffective customer support channels and gaps in accessible self-service options.
- Lack of in-person customer support.
- Distantism and exclusion of DeafBlind customers in decision-making processes.
- No partnership with DeafBlind organizations.

FINDINGS

The input from DeafBlind stakeholder groups gathered during semi-directed interviews closely aligns with the findings from the documentary analysis of the CRTC's NOC 2021-102 interventions.

Additionally, we identified several issues:

- Significant challenges in emergency situations during calls.
- Applications interferences and interoperability problems.
- Inconsistent attire standards among interpreters.
- The impact of CAV's mandate and sign language-only policy on VRS access.
- Conflict between confidentiality and accessibility strategies used by DeafBlind users, such as using a screen capture for text magnification.

CRTC's NOC 2021-102 Interventions from DeafBlind Stakeholders Groups

DeafBlind Stakeholders Groups' Input

Results of the User Testing

VRS Needs of DeafBlind People in Canada: Proposed Solutions

FINDINGS

The results from the user testing method revealed the following issues:

- The current platform was coded in a way that prevents Braille users to “read” the screen and to navigate around the platform.
- Assistance from a sighted person is needed to guide the DeafBlind user’s finger around the dialpad.
- The platform does not appear to adhere to design standards or coding guidelines.

CRTC’s NOC 2021-102 Interventions from DeafBlind Stakeholders Groups

DeafBlind Stakeholders Groups’ Input

Results of the User Testing

VRS Needs of DeafBlind People in Canada: Proposed Solutions

FINDINGS

In the CRTC's NOC 2021-102 interventions, semi-directed interviews, and user testing, DeafBlind participants proposed several solutions, including:

- Implementing the myMMX db application as an ideal quick-win end-user solution.
- Ensuring the VTP's universal design and optimal usability.
- Providing DeafBlind cultural awareness and accessibility training to VIs and CSRs.
- Including communication facilitators.
- Optimizing customer support communication channels.
- Implementing in-person customer support.
- Developing self-serve options that are accessible to DeafBlind users (e.g., website, FAQ, etc.).
- Incorporating a culture of accessibility and inclusion.
- Including DeafBlind customers from inception to delivery.
- Redesigning education, outreach, and community relations with DeafBlind customers from the outset.
- Partnering with DeafBlind organizations.
- Being mindful of internet and equipment affordability.

CRTC's NOC 2021-102 Interventions from DeafBlind Stakeholders Groups

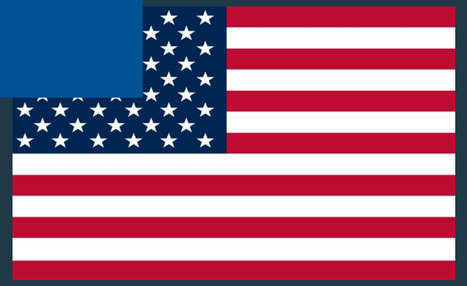
DeafBlind Stakeholders Groups' Input

Results of the User Testing

VRS Needs of DeafBlind People in Canada: Proposed Solutions

05

INTERNATIONAL COMPARISON



INTERNATIONAL COMPARISON

The main objectives of the international comparison of VRS offerings for DeafBlind users were to:

- Research and compile evidence-based practices focused on culturally responsive VRS offerings for DeafBlind users globally, including a literature review.
- Create an inventory of best practices from well-established VRS businesses and other relevant stakeholders to use as references to inform subsequent deliverables.

Based on pre-determined eligibility criteria, Sweden and the United States were selected for the international comparison of VRS service offerings for DeafBlind users.

Background and Methodology

Sweden

United States

INTERNATIONAL COMPARISON

To be included in the international comparison of DeafBlind VRS services, selected countries had to meet the following criteria:

- Political context: Similar socio-political and economic contexts to Canada.
- Regulations: Services regulated by governing bodies.
- Affordability: Subsidized by a governing body at no cost to VRS users.
- Availability: Services must be available on demand 24/7, including emergency services.
- Accessibility: At least one VRS provider must be fully accessible to DeafBlind users.

INTERNATIONAL COMPARISON

As a VRS technology developer in Sweden, nWise created the MMX platform for service providers and developed two end-user applications based on it. The myMMX app serves Deaf, DeafBlind, and hard-of-hearing users, while myMMX db is tailored specifically for DeafBlind users. Both apps can be used interchangeably by any registered user.

Key features of these applications include Communication Facilitator Mode (CF Mode), Total Conversation standards with video, Real-Time Text (RTT), and voice, and full customizability of the end-user interface.

Over the past decade, nWise's MMX platform has gained global use, notably for its accessibility features, especially for DeafBlind users.

INTERNATIONAL COMPARISON

Since Sorenson Communications Inc. (“Sorenson”) took over VRS services for DeafBlind users, the myMMX db application continues to be used and received several updates (myMMX, 2024).

In the near future, haptic technology will also be integrated, enabling DeafBlind users to feel vibrations during conversations.

Communication facilitators and the National DeafBlind Equipment Distribution Program are available to DeafBlind users for VRS purposes. Additionally, the Federal Communications Commission (FCC) has suspended certain VRS-related policies to allow a transition time for Video Interpreters (VIs) before handling VRS Calls with Real-Time Text (RTT) technology. For example, if the VI’s had not yet been trained, they could re-direct an incoming call from a DeafBlind caller which otherwise the Queueing Policy would prevent.

06

RECOMMENDATIONS

RECOMMENDATIONS

Achieving accessible VRS services for DeafBlind users is highly feasible. To reach this goal, the following elements are recommended:

Video Technology Platform

- Acquire the myMMX db license.
- Integrate the myMMX db application into the current VTP.
- Improve the current VTP's accessibility by incorporating RTT and customization features.

Video Interpreters

- Provide relevant training, such as DeafBlind cultural awareness and sensitivity training, and how to work with DeafBlind callers.
- Hire a DeafBlind-led organization to provide this training.

Customer Support

- Provide relevant training, such as DeafBlind cultural awareness and sensitivity training, and how to work with DeafBlind callers.
- Hire a DeafBlind-led organization who would provide this training.
- Consider customer support with expertise in DeafBlind services.

RECOMMENDATIONS (CONT'D)

Governance and Management

- A combination of some or all of the following:
  - Hire DeafBlind expert(s) as CAV staff.
  - Contract with DeafBlind consultants and subject matter experts (SMEs).
  - Create a DeafBlind Director position on CAV's Board of Directors.
  - Establish an advisory committee composed of various minorities representatives, including DeafBlind groups.

Education and Outreach

- Redesign education and outreach, which would be provided to a combination or some or all of the following:
  - DeafBlind organizations.
  - Video Interpreters Providers.
  - Nonprofits representing DeafBlind consumers.
  - CAV.

RECOMMENDATIONS (CONT'D)

Communication Facilitators

- Include communication facilitators in CAV's VRS service offerings for DeafBlind users.
- Collaborate with local organizations and agencies that already provide interpreting services to DeafBlind consumers, such as support service providers (SSPs), intervenors, and Protactile interpreters.
- Ensure that DeafBlind consumers get access to VRS while the funding model for communication facilitators in the context of VRS is studied and developed by relevant authorities.

Customer Costs and Access to Specialized Telecommunications Equipment

- Collaborate with organizations and agencies that specializes in DeafBlind and Blind services, based on current funding available at the province and local-level for accessible equipment distribution.
- Ensure that DeafBlind consumers get the financial support, equipment, and training they need through different existing sources while the funding model for DeafBlind customers' access to specialized telecommunications equipment is studied and developed by relevant authorities.

07

CONCLUSION

CONCLUSION

Implementing an accessible VRS service offerings for DeafBlind users is highly feasible.

By addressing gaps as identified throughout the study, such as VRS technology, video interpreters, customer support, governance and management, education and outreach, communication facilitators, and equipment distribution, DeafBlind users will be able to independently use Canada VRS services.

To ensure the success of CAV's initiatives in DeafBlind VRS access, it is crucial to involve DeafBlind stakeholder groups, experts, and subject matter experts (SMEs) throughout all DeafBlind-related initiatives. Additionally, systematically implementing these recommendations will enhance Canada VRS accessibility.

08

GLOSSARY

GLOSSARY

- Communication Facilitator
  - A Communication Facilitator (CF) is a sighted individual, whether hearing or Deaf, who uses tactile sign language to assist DeafBlind individuals access screen devices that they may not be able to use, such as televisions, computer monitors, or tablets for making phone calls.

- Distantism
  - Coined by John Lee Clark, is a societal bias favoring sight and hearing over tactile senses, leading to oppression of DeafBlind individuals.

- DeafBlind
  - It is a term that comes with capitalized D and B letters, was originally coined to describe one's acknowledgement of one's own DeafBlindness as part of identity and embrace it one way or another. Their decision to identify oneself as DeafBlind does not necessarily correlate with the level of residual vision he or she might possess at the time.

- Intervenor
  - It refers to a professional who facilitates interactions between DeafBlind individuals and their environment, providing communication and support services (see Support Service Provider). This term, however, is not yet widely used across Canada.

GLOSSARY (CONT'D)

- Protactile
  - It is a tactile modality and language developed by and for members of the DeafBlind community.

- Sight-reliant DeafBlind
  - It refers to individuals who identify oneself as DeafBlind yet retain the function of remaining residual vision to perform various everyday functions such as - engaging in conversation in ASL or LSQ visually.

- Support Service Provider
  - Similar to the role of an intervenor, it refers to a professional who facilitates interactions between DeafBlind individuals and their environment, providing communication and support services. This term, however, is not yet widely used across Canada.

- Tactile-reliant DeafBlind
  - It refers to individuals who retain a sense of touch to perform everyday functions such as use tactile communication or language.

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