

Elevating Lives With
**Custom-Built
VRS Application**



Project Summary



Industry:
Assistive Technology



Region:
Canada



Challenges/Objectives:

Leverage technology to ease communication for the deaf community with easy access to VRS



Solution:
A Custom-Built VRS Application



Results:

Empowered community and elevated lives through technology

Introduction

Video Relay Service (VRS) technology has revolutionized how deaf, hard-of-hearing, and speech-impaired individuals make and receive calls. The innovation employs communication assistants to facilitate real-time interpretations from call centers or other working locations, ensuring smooth conversations.

Before the advent of VRS, individuals in the deaf community had to rely on typed messages to communicate. This method often proved to be slow, indirect, and tedious. VRS has fundamentally changed this landscape by providing a more efficient and direct means of communication. It has significantly streamlined the process and opened up a world of possibilities for the deaf community.

Although VRS is not new, it was introduced in Canada only in 2016. The impact of the innovation, thus, took a slower pace. Our client, SRV Canada, was the first to introduce a national internet-based VRS in the country. Through their

free VRS application, they wanted to help members of the deaf community engage in conversations with the same ease and immediacy as those who use standard telephonic services. To bridge the communication gap and foster greater inclusion and accessibility in society, the client wanted to leverage top-notch technology to improve their application.



The Client

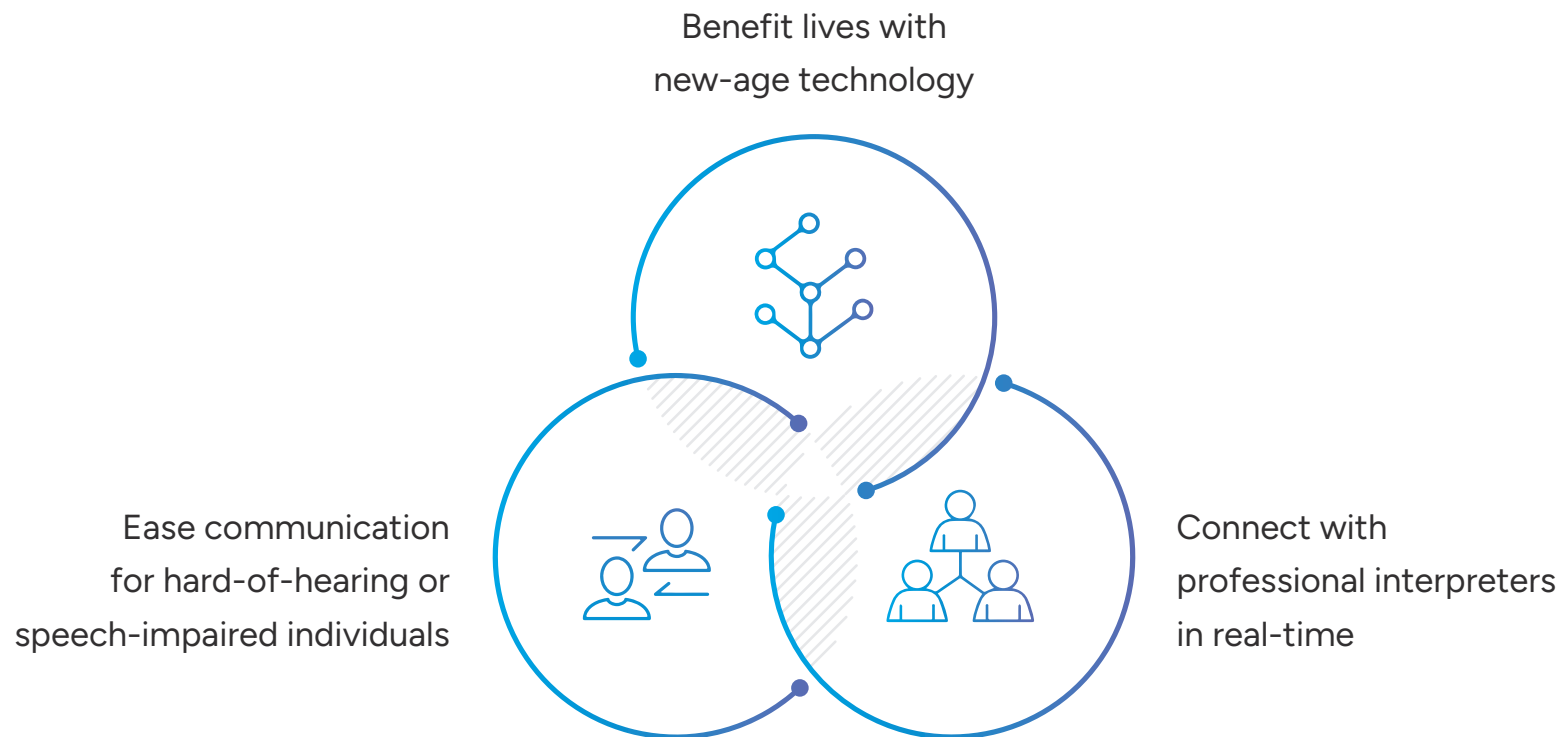
SRV Canada is a non-profit telecommunications service company working for the deaf, hard-of-hearing, or speech-impaired individuals who use **ASL** (American Sign Language) or **LSQ** (Langue des signes québécoise). Their free VRS app enables users to make and receive calls with a simple download and registration. However, the app was encountering frequent bugs and crashes. They realized the app needed an upgrade to continue to deliver seamless communication for their clients.



The Challenge

What SRV Canada wanted was a simple and user-friendly app that eased communication for the deaf community. Their wrapper app, which worked on desktops and laptops, connected registered users with professional interpreters in real time. However, the quality of the app often hindered effective communication. As a result, they were unable to factor in an app that was both stable and reliable for its registered users to log in and make calls anytime they needed.

Project Objectives/ Challenges



Solution – A Custom-Built VRS

Fingent recognized the need for a customized solution that could help the client deliver easy communication for the deaf and speech-impaired through VRS. The priorities were clear - simple navigation, quick access, and real-time functionality. After a crucial analysis of the client's requirements, challenges, and user behavior, Fingent proposed building a custom software solution that offered the registered users easy and instant access to VRS.

The native app, compatible with Windows and MAC, allows users to communicate visually seamlessly. A simple registration and login allow users to make and receive calls, manage call logs, contacts, and businesses, and even make emergency calls to national hotlines.



Features of the Application



Technology Stack



Windows App

IDE	Visual Studio
Programing Language	C# .NET
Database/Local Storage	SQLite, JSON
Framework	UWP, .NET4.7.2 (MVVM)
Version Control	On-premise Git repository
Design Tools	Blend
Target Operating System	Windows 10 1809



Mac App

IDE	XCode
Programing Language	Swift
Database/Local Storage	SQLite, JSON
Framework	MVP
Version Control	On-premise Git repository
Design Tools	Sketch
Target Operating System	High Sierra 10.13, Mojave 10.14

Implementation Challenges

Challenge #1



Building a native application that runs on both Windows and MAC was challenging. The team had to ensure the functionalities were compatible with both technologies while maintaining equal user experiences and risk-free implementation. The team had to be extra careful to ensure the native app did not encounter bugs or crashes in both systems.

Challenge #2



Building the native app required seamlessly integrating multiple APIs and a SIP (Session Initiation Protocol) stack. The APIs and SIP stack were implemented by a company in France and required effective coordination and stacking. Our team was able to streamline the entire process through an agile methodology.

The Impact

The solution enabled the client to deliver a more robust and stable application for users of Video Relay Services (VRS). The enhanced capabilities and features were particularly beneficial for deaf individuals, allowing them to make and receive calls effortlessly. Additionally, the application provided hearing-impaired users with tools to manage contacts and businesses through various modules, facilitating easy information retrieval.

Overall, the solution had a significant impact by enhancing communication for the deaf community, empowering them to participate in society actively. Fingent successfully touched and elevated lives through technology!



About Fingent

We are a **Global IT company** providing strategic technology solutions for business complexities. Our technology and industry expertise enable us to deliver cutting-edge, scalable, secure, and easy-to-use software applications that empower enterprises to do more. We believe that, the judicious use of technology and a simple design can bridge gaps, deliver more success, and touch more lives through technology.

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