### **Tags:**

### Industry: Healthcare, Telecommunications, Accessibility Solutions

* Product: Accessibility Platforms

### **Video Relay Service (VRS): Accessible Communication for Hearing-Impaired Users**

**Link - https://play.google.com/store/apps/details?id=us.purple.purplevrs**

#### **Overview**

A U.S. government-funded organization partnered with MOBIAN to develop a Video Relay Service (VRS) platform, providing hearing-impaired users with accessible communication tools. The project spanned 2–3 years and resulted in a multi-product system, including a custom TV-connected device, a mobile application, and a tablet-compatible SIP phone. MOBIAN addressed unique hardware and software challenges to deliver a scalable, user-friendly solution in a previously untapped market.

#### **Client Challenges**

* Designing a custom TV-connected device operating on a bespoke Android OS without Google Play Services or standard Android components.
* Adapting UI/UX for a TV-based interface with remote control functionality.
* Developing a native Android and iOS mobile application to complement the TV device and provide multi-platform accessibility.
* Building an Android-powered SIP phone for regular and SIP calls, integrating custom hardware features.
* Implementing real-time video calls with sign language interpretation using a custom SIP server.

#### **Solution**

MOBIAN extended the client’s team and delivered a comprehensive, multi-device platform:

* Custom TV-Connected Device:
  + Android-powered console connected to TVs via HDMI, managed by a Bluetooth remote controller.
  + Operated on a custom Android OS built on AOSP sources.
  + Supported OTA updates for seamless upgrades.
* Mobile Application:
  + Native Android and iOS applications supporting VRS calls with sign language interpretation.
  + Android: Java/Kotlin, MVVM, RxKotlin.
  + iOS: Objective-C/Swift, MVC, Alamofire.
  + Over 100,000 downloads, providing flexibility for smartphone and tablet users.
* SIP Phone Application:
  + An Android-powered device with a touchscreen tablet and physical buttons.
  + Capable of regular telephone and SIP calls, leveraging a custom SIP server.
  + Built using standard Android principles while integrating native SDKs for custom functionality.

#### **Key Figures**

* 100,000+ downloads of the mobile application.
* 3 products in one project: multi-device system including TV-connected devices, mobile phones, and SIP phones.
* Continued support and updates ensure long-term accessibility and reliability.

#### **Visual Elements**

* Infographic of System Components: Illustrating the TV-connected device, mobile app, and SIP phone integration.
* Flow Diagram: Demonstrating how the custom SIP server enables real-time video calls across devices.
* Device Screenshots: Showcasing the TV device interface and mobile app design.

#### **Why MOBIAN?**

MOBIAN delivered an innovative, multi-platform communication system that empowers hearing-impaired users with accessible and scalable solutions. By addressing complex hardware and software challenges, MOBIAN enabled the client to offer unparalleled tools for inclusivity and communication in an untapped market.

**Looking to create scalable and accessible digital solutions?  
[Let’s collaborate!]**

### **Video Relay Service (VRS): Accessible Communication for Hearing-Impaired Users**

A U.S. government-funded organization collaborated with MOBIAN to develop a Video Relay Service (VRS) platform. Over 2–3 years, we delivered a multi-product system including a custom TV-connected device, a mobile app, and a tablet-compatible SIP phone. The solution enables real-time video calls with sign language interpretation and supports accessibility across multiple devices, redefining inclusive communication for hearing-impaired users.

* **100,000+ downloads** of the mobile application.
* Multi-device system: **TV-connected devices, mobile phones, and SIP phones**.
* Fully scalable and accessible platform with ongoing support and updates.

**MOBIAN — your partner in building accessible, scalable solutions for all.**