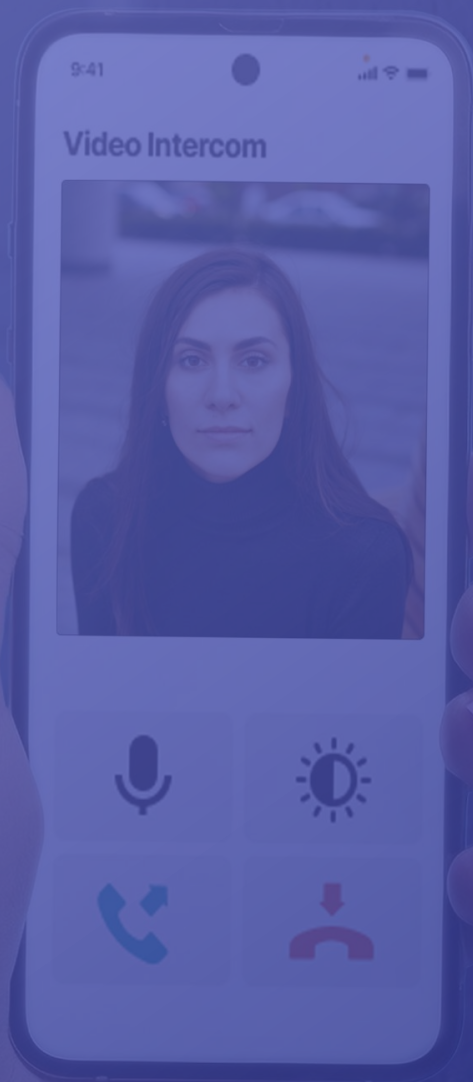


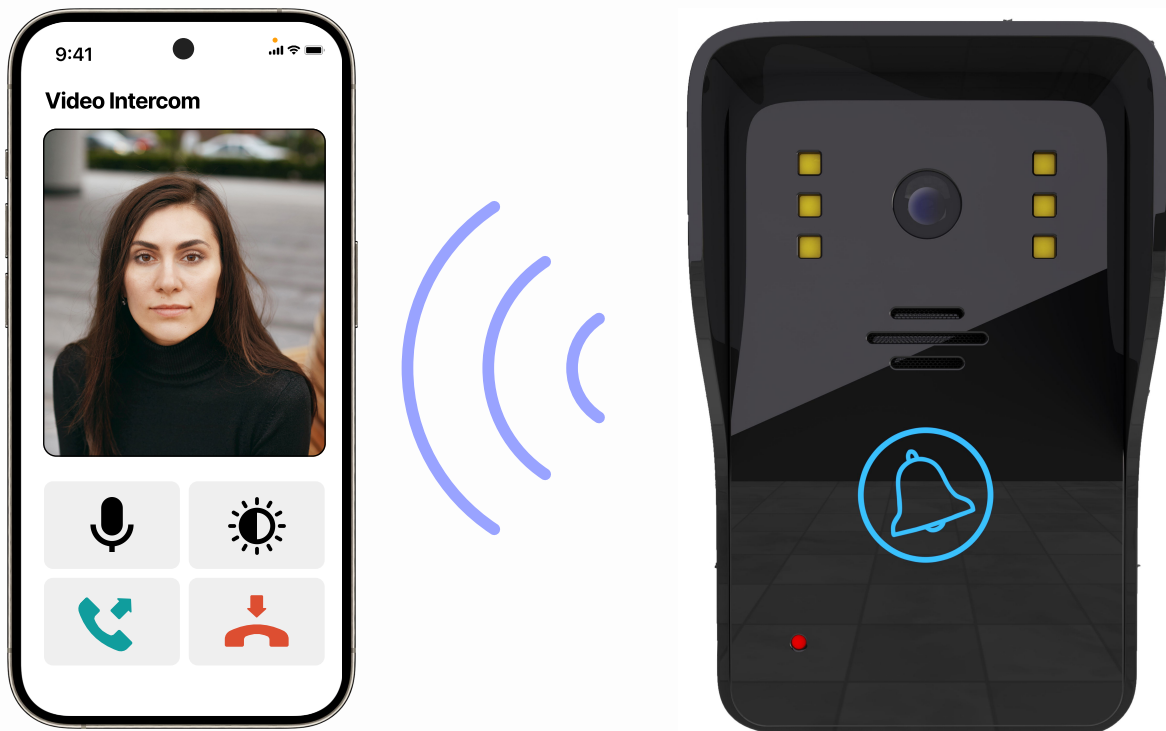
# SMARTPHONE-BASED ACCESS SYSTEM

Datasheet



# Project objective

Create a mobile app that provides intercom functionality, including audio and video calls and access control, to be integrated within client's security management systems. The app had to communicate over extended SIP and RTP protocols.



# Result

Running on both iOS and Android, across smartphones and tablets, the delivered intercom app enables reliable communication with door devices and access to premises. Acting as the central coordinator and controller for all intercoms on-site, this innovation empowers the client to offer customers advanced and flexible security management solutions, enhancing the overall security ecosystem.

## Scope of work

- ❖ Definition of business objectives and use cases. Onsite assessment of the client's intercom system, including licensing options, SIP stacks, discovery protocol, and configuration settings
- ❖ Storyboard creation and UI demonstration
- ❖ Definition and implementation of business logic, replicating master station logic with respect to protocol connectivity and network device compatibility
- ❖ Implementation of UDP-based device discovery within the network using a proprietary protocol
- ❖ Implementation of SIP-based peer-to-peer audio calls between Master Stations, from Audio Door Station to Master Station, and Audio/Video calls from Video Door Station to Master Station
- ❖ Implementation of TCP-based Door Release functionality with SSL encryption
- ❖ Implementation of paging for a group of stations or all stations in the address book
- ❖ Engineering testing to assess memory consumption, ensure smooth business logic execution, and validate app performance across various environments

## Activities

- ❖ Engineering consulting
- ❖ Requirements verification
- ❖ Storyboards & GUI development
- ❖ Software architecting
- ❖ Software development
- ❖ Testing & bug fixing
- ❖ Follow-up support

# About the project

## Technologies

- ❖ Embedded C/C++
- ❖ Objective C
- ❖ Java
- ❖ Qt 5.x
- ❖ Eclipse IDE
- ❖ XCode
- ❖ SIP/SDP
- ❖ RTP
- ❖ UDP
- ❖ TCP/IP
- ❖ SSL

## Project size

- ❖ 1 Software Architect
- ❖ 2 Software Engineers
- ❖ 1 Technical Writer
- ❖ 1 Graphics Designer

## Duration



## Platform

- ❖ iOS
- ❖ Android