Pintor Project

Systems - Design and Development

Technical Documentation of the Biometric Validation Service

Introduction

This document describes the Biometric Validation Service, a solution implemented by Pintor Project to authenticate identities using biometric and document recognition technologies. This service uses Android's ML Kit for the implementation of specialized capture components, Computer Vision, and Microsoft's Face API for identity document recognition and verification, as well as facial authentication, respectively.

About Pintor Project

Pintor Project is a Microsoft partner, whose team of certified specialists develops and maintains the Biometric Validation solution. With the backing of Microsoft's cutting-edge technology, Pintor Project is committed to providing a secure and efficient solution for identity authentication.

Microsoft Partner

System Components

The solution is composed of several technological components:

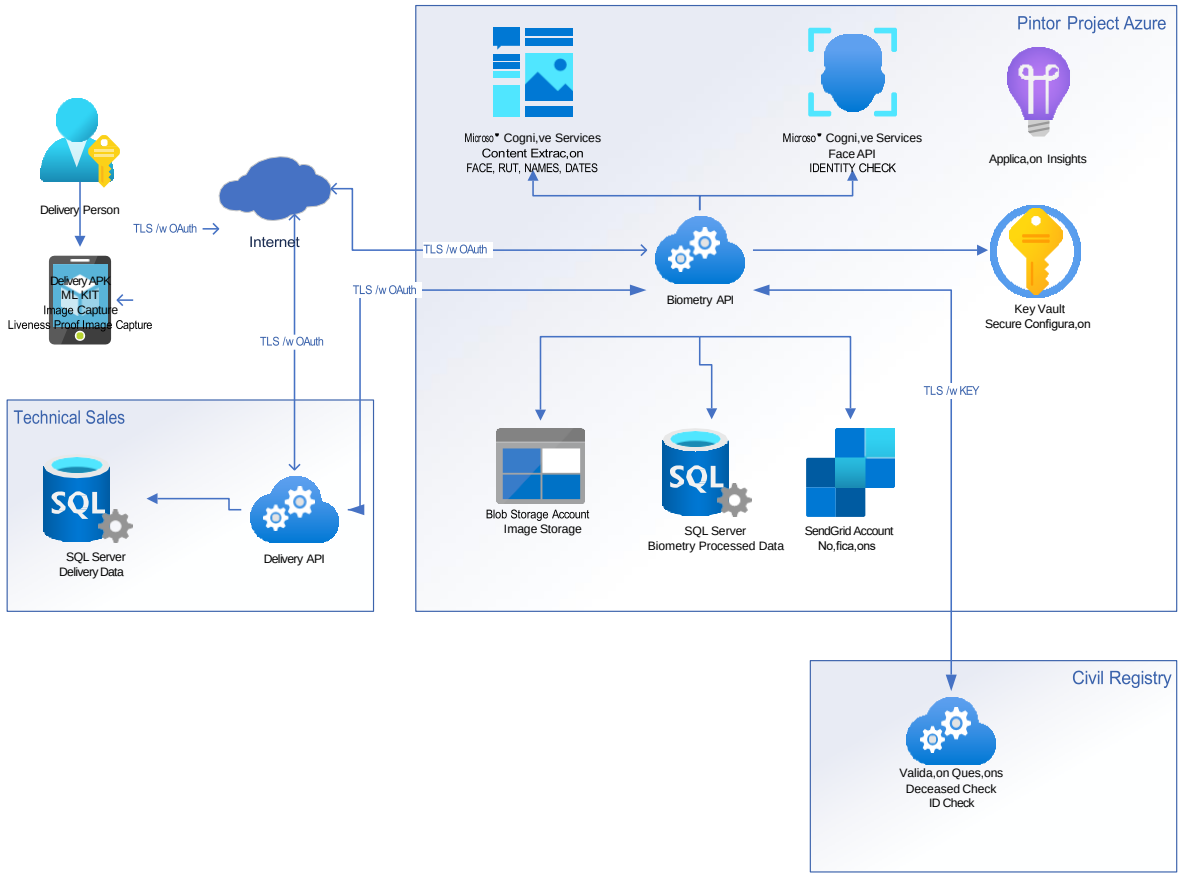
1. **Mobile APK (VETEC):** This application is used by couriers to collect the required information for biometric validation. The VETEC APK includes integrated components provided by Pintor Project, ensuring secure capture of ID document images and real-time verification of the subject's authenticity using Android's ML Kit.

2. **Biometric API (Pintor Project):** This is the core of the biometric validation solution, hosted on Microsoft Azure cloud. This API integrates the following components:

    1. **Microsoft Cognitive Services:** Includes the Content API, which is used to extract information from identification documents, and the Face API, which is used for facial authentication.

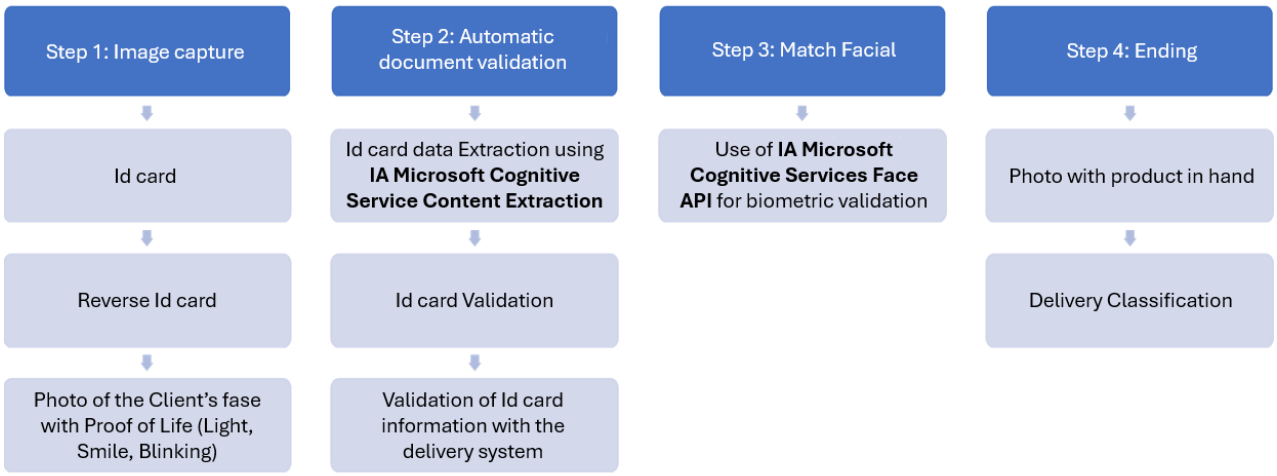
2. **Microsoft Azure Blob Storage:** Where photos are securely stored for later processing.
3. **Microsoft SQL Server:** Database that stores processed and validated information.
4. **SendGrid:** Service used to send automatic notifications.

3. **Delivery System (VETEC):** The solution integrates with this system for managing deliveries.
4. **Civil Registry System (Sinacofi):** Official source of information for validating identification data.

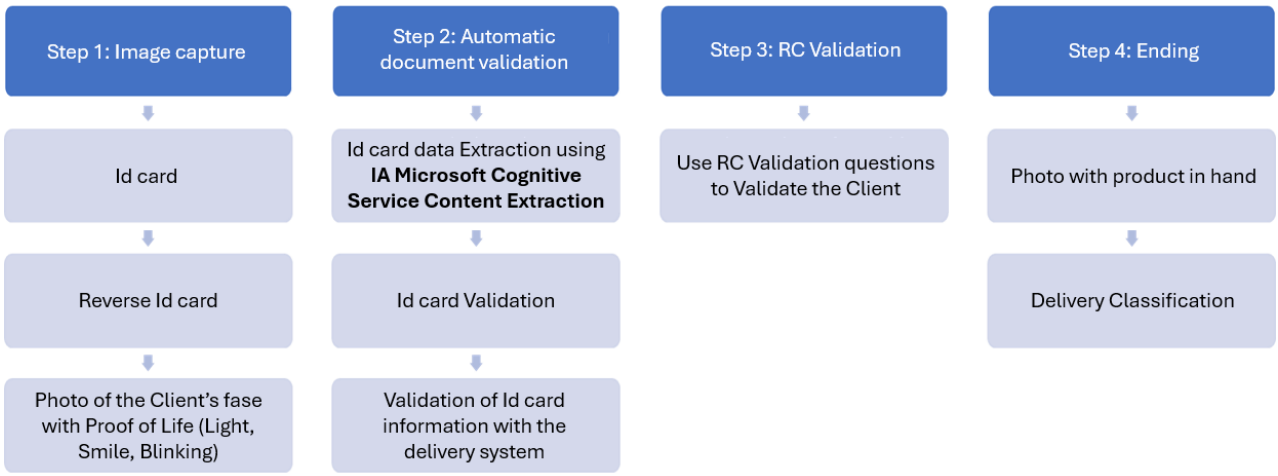


Process Flow

The biometric validation process is initially carried out using facial biometrics, and if it is not successful, civil registry validation questions are used:



In the case of unsuccessful facial biometric validation, civil registry validation questions are used:



Conclusion

The Biometric Validation Service provides a comprehensive and secure solution for identity authentication. By integrating various Microsoft technologies, and with the support of Pintor Project as a trusted partner, this service can accurately verify a person's identity using their identification document and facial authentication.