



# UIDAI HACKATHON 2021

**“Authentication Reimagined”**



# Topics

- Introduction
- Problem Statements
- Deliverables
- Possible Flows
- Resources

# Introduction

- Hypergrowth in Smartphone domain.
  - Smartphone as de facto instrument for Digital India
- UIDAI tends to leverage this behavioral change in the life of a citizen and would like to reimagine the authentication and identity platform.
- As a part of the 'Auth Reimagined' theme of Hackathon, develop a resident and verifier application and the communication between them.

- **Resident Application**



- Avail auth products of UIDAI
- Facilitates secure communication b/w UIDAI & residents
- Privacy should be utmost priority, Aadhaar number should not be preferred

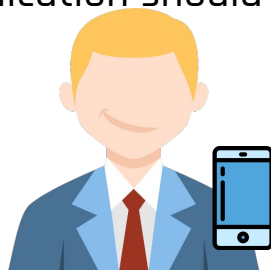
- **Verifier Application**



- 3<sup>rd</sup> party app using UIDAI services for validating claims of residents

# Problem Statements

- Build a real world Application using one or more of UIDAI's authentication services
- **PS-1 : Airport/Stadium/Railway check-in Application**
  - Create an application for smooth check-in experiences
  - Use Aadhaar Services, without revealing Aadhaar number
  - The client application will make use of UIDAI face authentication service.
  - The verifier application may be assumed to have no access to UIDAI servers
  - The application should work **offline** and provide **sub-second** end-to-end response time



Resident



Verifier



# Problem Statements

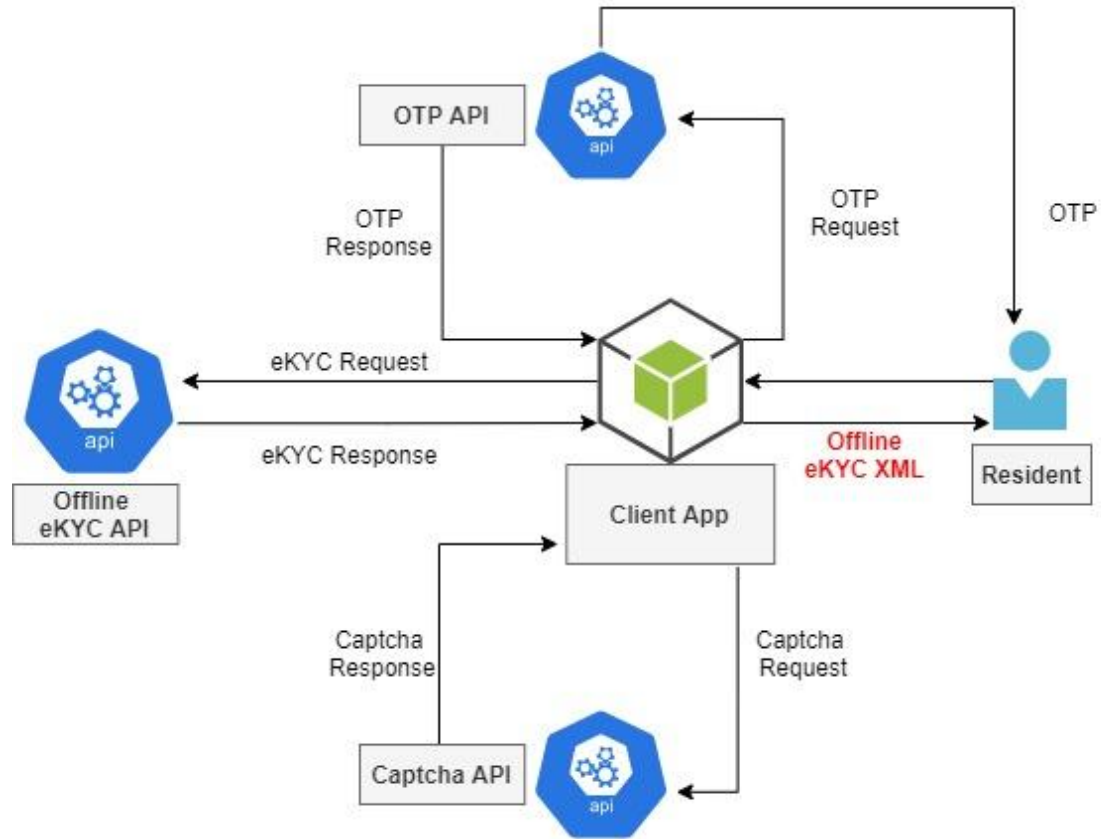
- **PS-2 : Aadhaar backed Video KYC for availing resident facing services:**
  - Using face match technology for online/offline auth
  - Build a system that can help the verifier establish your identity (resident) without accessing the biometric authentication platforms of UIDAI
  - The resident shares the offline eKYC document (avbl in XML format) with the verifying agency for validation
  - The verifier will use the photo taken on site and match it against the photo available in the eKYC document
  - The verifier application can use the headless face authentication APK of UIDAI to validate the eKYC document in a completely offline (not connected to UIDAI backend systems) manner for authenticity using face match technology.

# Problem Statements

- **PS-3 : Use of Aadhaar as additional factor in 3<sup>rd</sup> party transaction**
  - Use the services of Aadhaar to securely conduct high value transactions in third party apps without compromising the privacy of the resident
  - Can we get a “token” (digitally signed authentication response) from an Aadhaar auth from online face auth on the resident mobile and later use this token as an additional (second) factor of authentication in a third-party application
- **PS-4 : Achieving 100% auth success in Rural Areas**
  - Use fingerprint/face/otp and offline auth modes aiming for 100% auth success
  - Use face authentication for residents for whom fingerprint(OTP) does not work.
  - Use offline face authentication when network connectivity is not available.
  - As always, Aadhaar number need not be exposed to the verifier application

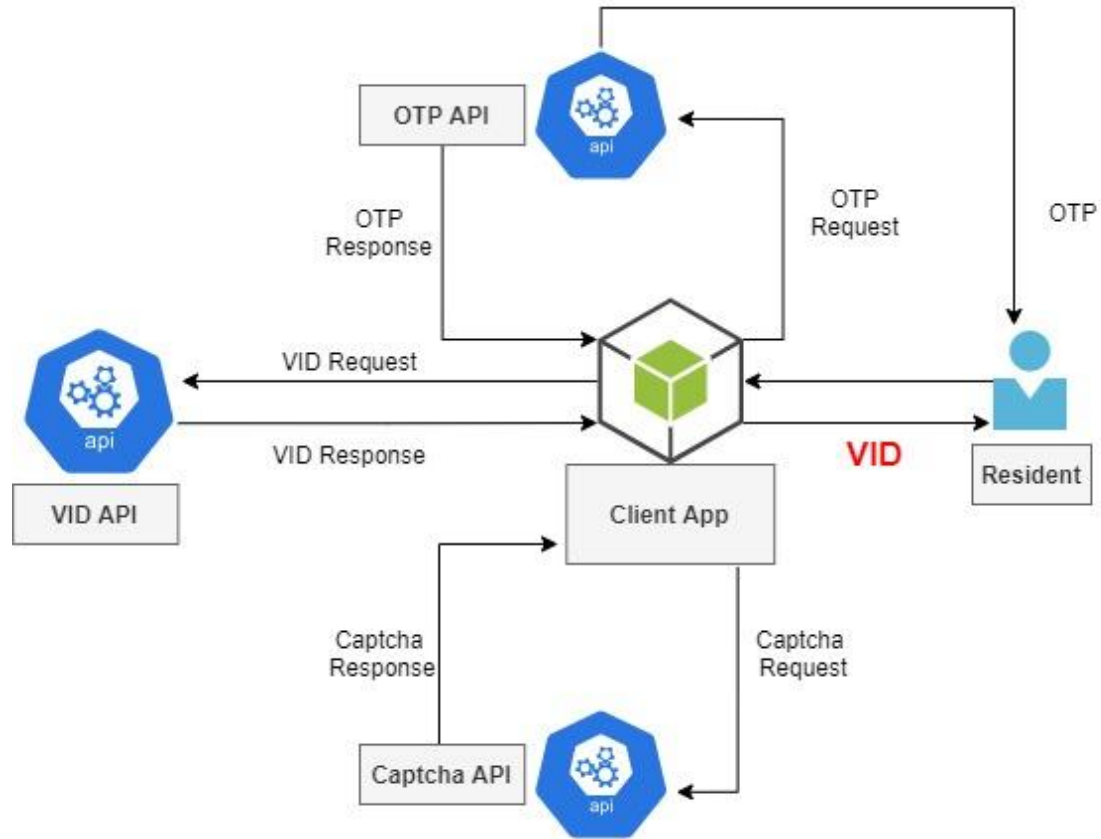


# Offline eKYC

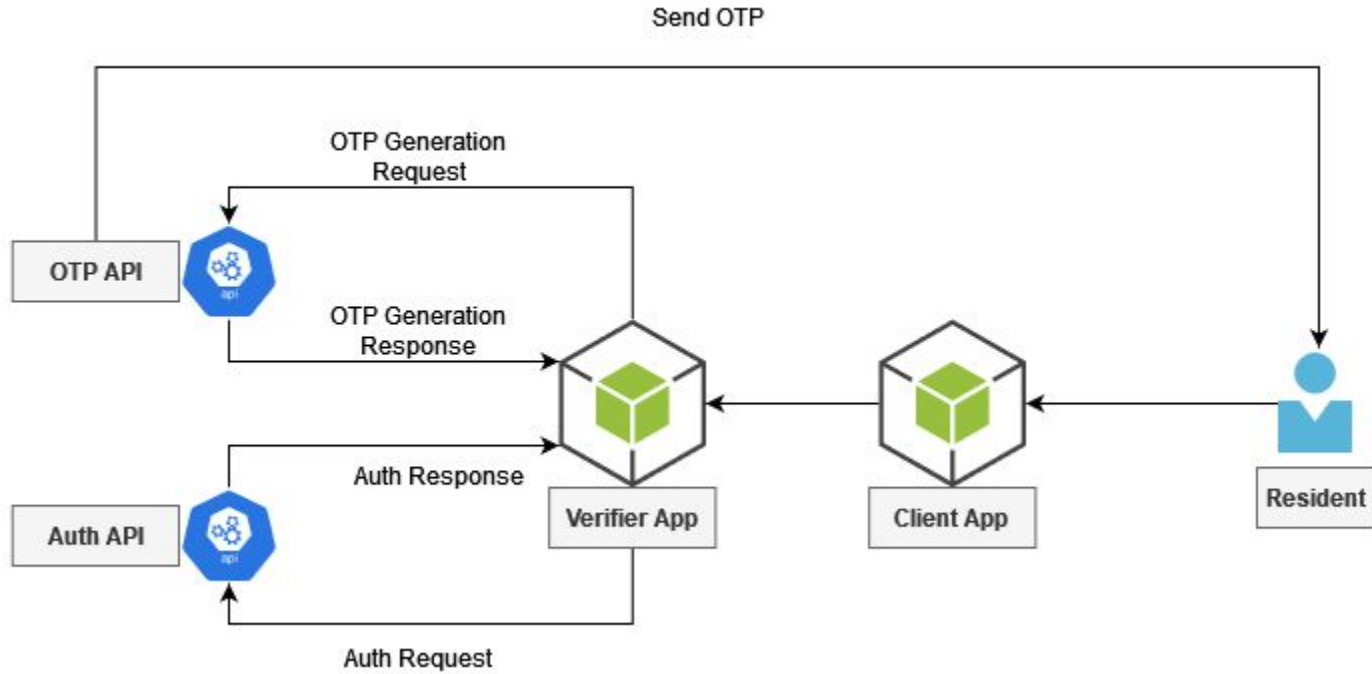




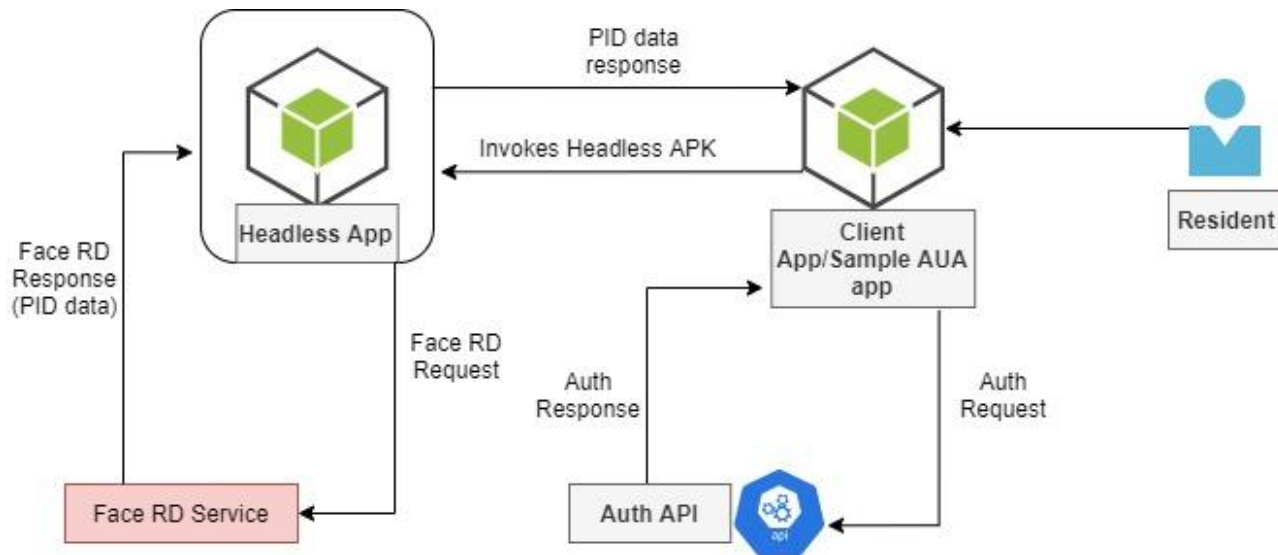
# VID Generation API



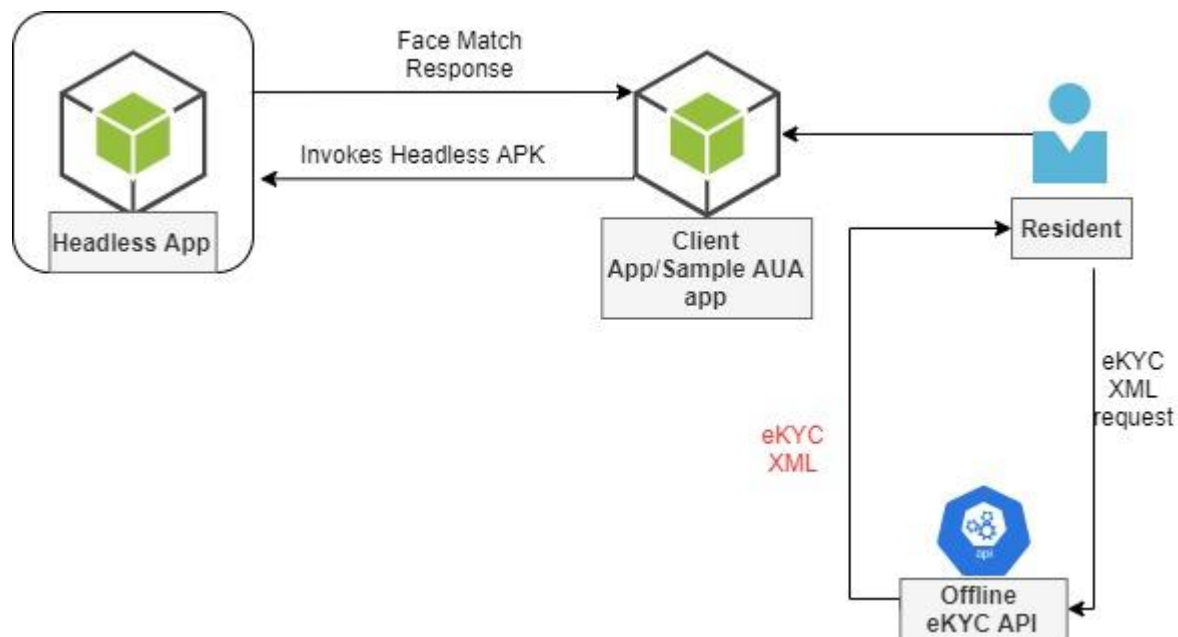
# OTP Flow



# Face Authentication Online



# Face Authentication Offline



- UIDAI will provide Sample Application
  - Verifier app/code using staging sandbox UID for auth
- Available UIDAI auth services/APK
  - Aadhaar Authentication APIs
  - OTP APIs
  - Offline eKYC APIs
  - VID (Virtual IDentity) Generation API
  - Aadhaar Face Auth APK

# Thank You

