

Alibaba Cloud Intelligence

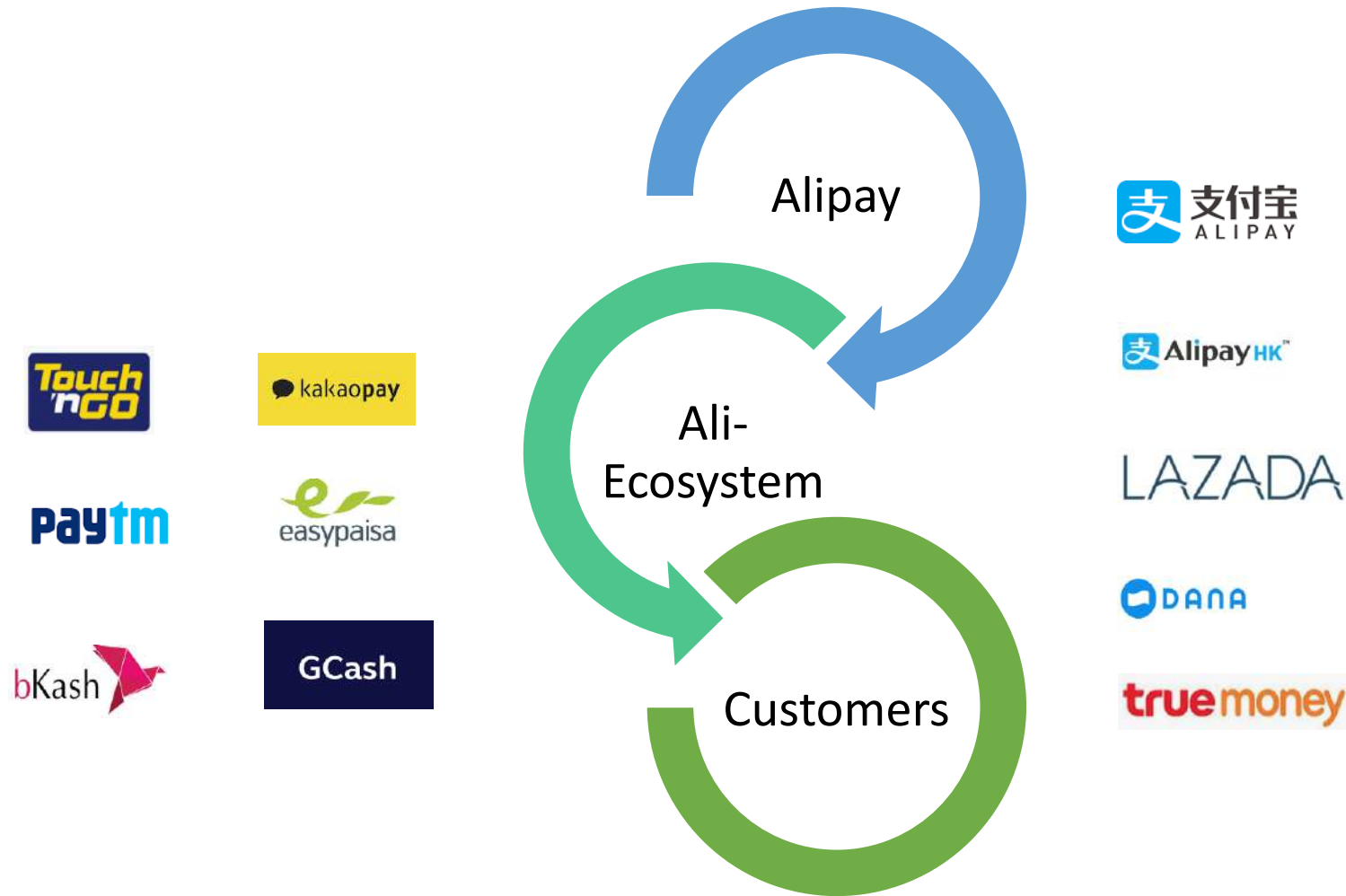
***Accelerate Your Digitalization***



# ZOLOZ Identity Verification



# ZOLOZ Introduction



ZOLOZ leverages matured biometrics and authentication expertise from Ant Financial.  
ZOLOZ Mission : Make Trust Simple!



# Digitalization and Identity Verification



e-Bank account opening



Micro-Financing



Mobile operator SIM card registration



Mobile check-in



Sharing economy



Online Gaming



Virtual Assets

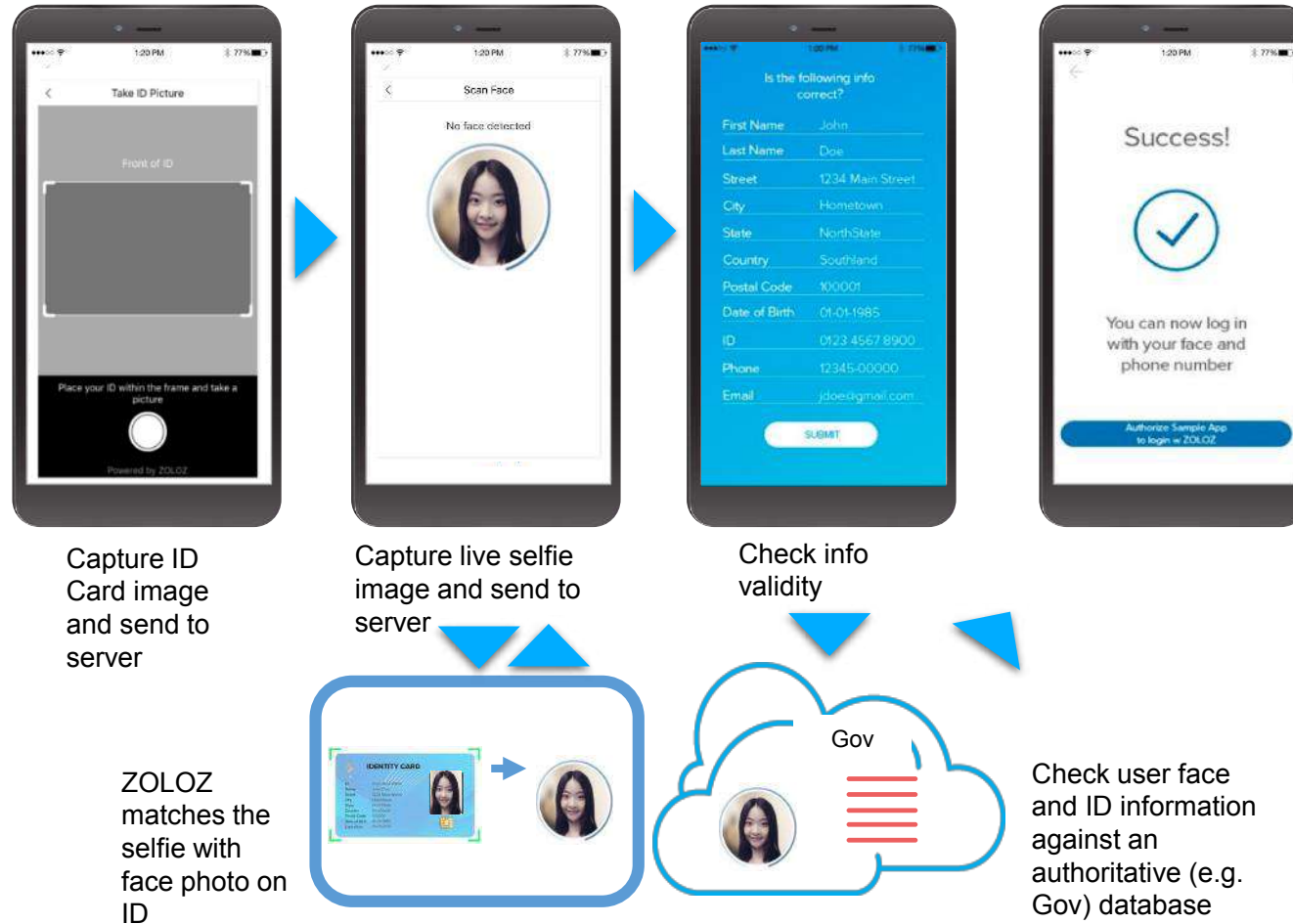


e-Commerce



# ZOLOZ Real ID

ZOLOZ Real ID provides a digital and remote online solution for eKYC.



# ID Verification



Template Check



Material Check

Real card    Matte surface    Screen 1



Paper    Coated Paper    Screen 2



#1 HKID Optical Variable 光學變色墨水

#2 HKID Kineprint 動態印刷

#3 Relief 浮雕

#4 HKID Multiple Laser 多重激光影像

#5 Microprinting(Front-side)縮微文字印刷

#6 Soften Photo Area 漸淡色背景

#7 Microprinting (Backside) 縮微文字印刷

1 Optical Variable (光學變色墨水)  
- Check optical variable ink viewed at different angles.

Angle	Sample	Color
Angle 1		Red
Angle 2		Gold

2 Kineprint (動態印刷)  
- Check kineprint viewed at different angles

H - red

K - black

3 Relief (浮雕)  
Check relief pattern

4 Multiple-Laser (多重激光影像)  
Check optical variable ink viewed at different angle

Angle	Sample
Angle 1	
Angle 2	

Guilloche (扭索式圖案) 10

Microprinting (縮微文字印刷) 5  
Check Front-side Microprinting Pattern.

Soften Photo Area (漸淡色背景) 6  
Check the background of the photo image

Under UV Light (紫外燈光下) 9

Rainbow Printing (彩虹印刷) 8

Microprinting (縮微文字印刷) 7  
Check Backside Microprinting Pattern.

Security Check

Tampering Check



# Passport Verification



Template Check



Material Check

Passport    Matte surface    Screen 1



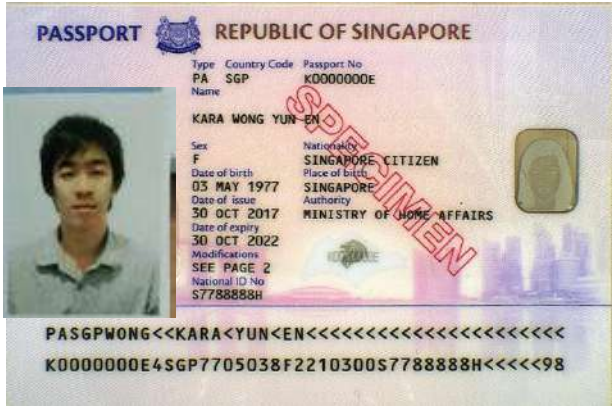
Paper    Coated Paper    Screen 2



NFC Reading  
(Pilot)



communication



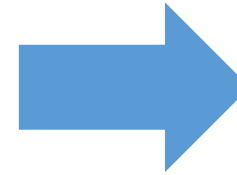
Tampering Check



# ID OCR Performance



ID document tailored OCR solution to locate and extract data filed with high accuracy



Is the following info correct?

First Name	John
Last Name	Doe
Street	1234 Main Street
City	Hometown
State	NorthState
Country	Southland
Postal Code	100001
Date of Birth	01-01-1985
ID	0123 4567 8900
Phone	12345-00000
Email	jdoe@gmail.com

SUBMIT

Below the form is a logo of a person using a smartphone.






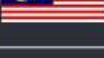


User feedback correction. AI validation and semantic analysis .



\* Percentage based accuracy tested with Production Data



# IDs and locations supported – Singapore SaaS

Country		E-KYC Solution
	China	✓
	Hong Kong	✓
	Macau	✓
	Indonesia	✓
	Philippines	✓
	Malaysia	✓
	Thailand	✓
	Bangladesh	✓



Supported ID list: <https://docs.zoloz.com/zoloz/saas/docs/gll68k#fhCN4>

# Liveness Attack and ISO certification



Attack with phone screen



Attack with printed photo



Screen retaken attack



Face mask attack



Attackers blinking behind a mask



ZOLOZ is 1 of only 8 companies in the world to achieve this certification



Table 6 Industry Accepted Levels of Attack

Level	Attack Potential	Examples
Level A = iBeta Level 1	Time: short (iBeta 8 hours) Expertise: anyone Equipment: readily available	paper printout of face image, mobile phone display of face photo iBeta also includes: video (from mobile phone) display of face (with movement and blinking)
Level B = iBeta Level 2	Time: >3 days Expertise: moderate skill and practice needed Equipment: available but requires planning	paper masks, video display of face (with movement and blinking), resin masks, latex masks (untargeted subject), silicon masks (untargeted subject)



# Optimal onboarding experience – Native SDK

## ID Verification

### Competitor

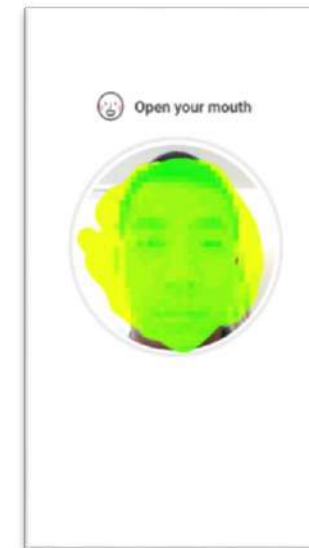
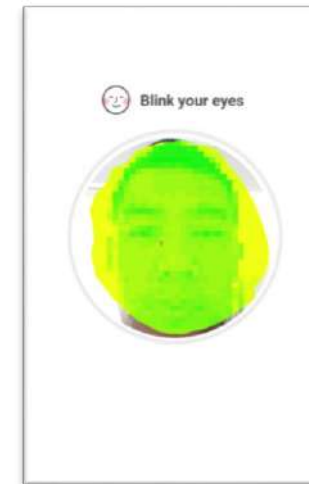


### ZOLOZ Real ID

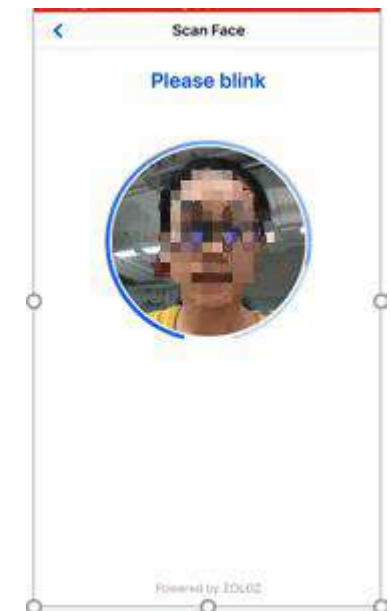


## Liveness Detection

### Competitor

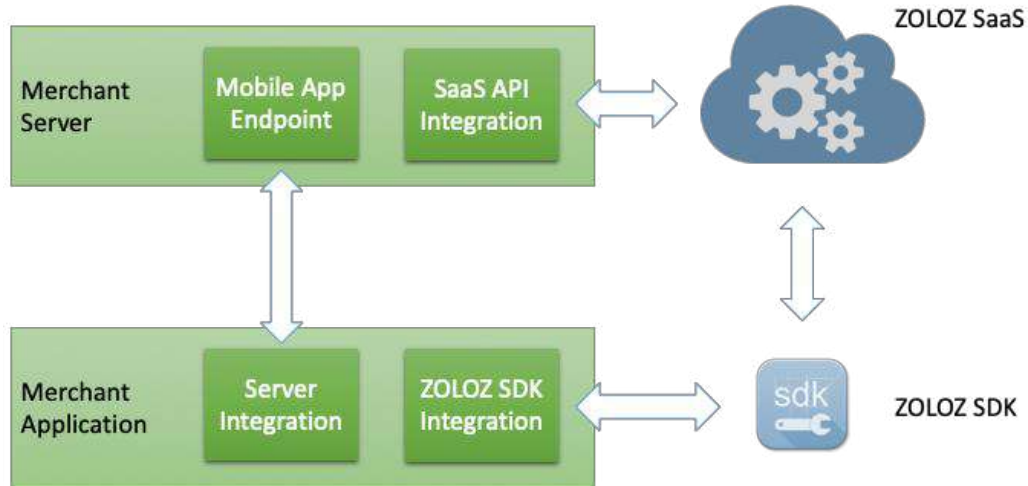


### ZOLOZ Real ID

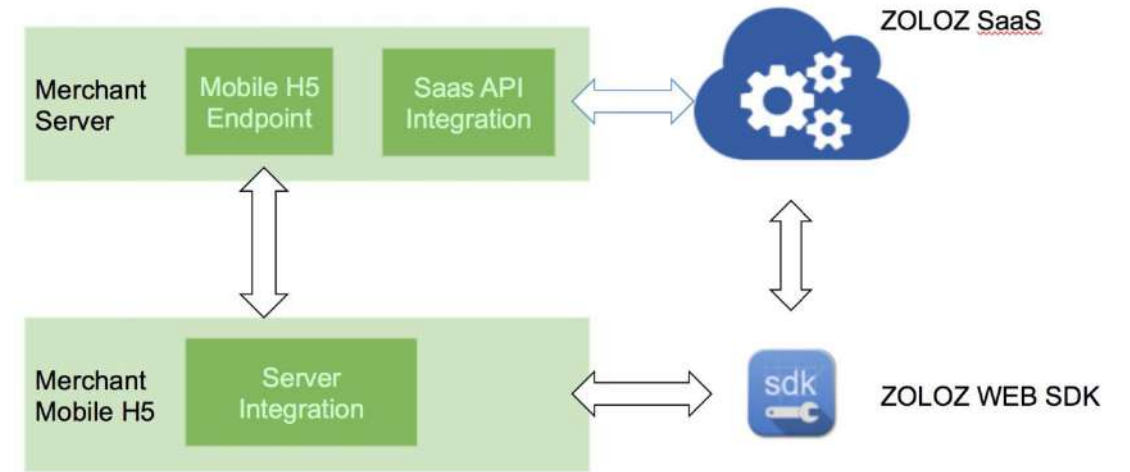


# Solution integration options – SaaS

## Mobile App SDK



## Mobile Web SDK

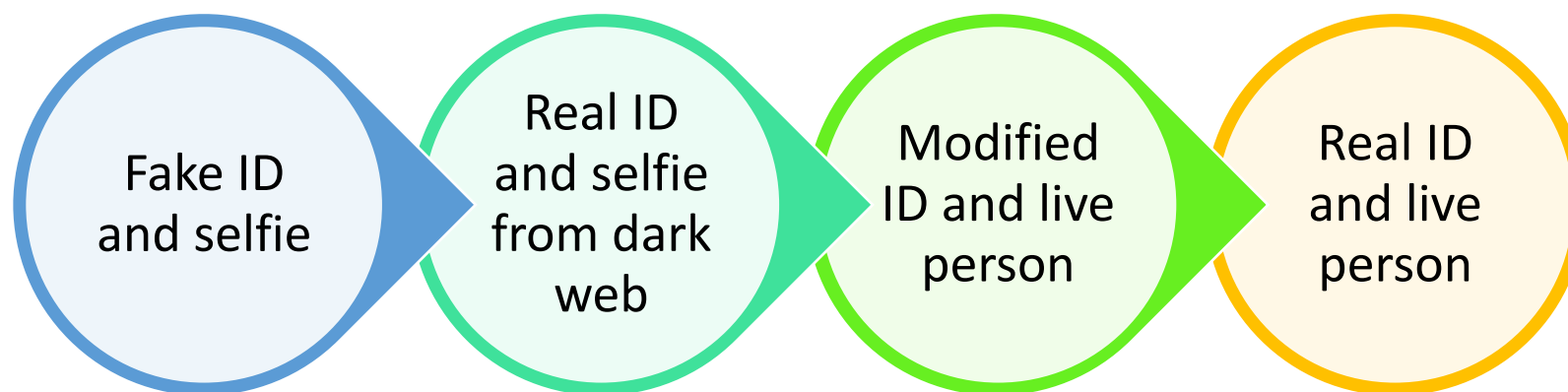


**Best in class: Mobile App SDK ~5MB vs. Competition ~20 to 30MB**



# Fraud Trend on Online Verification

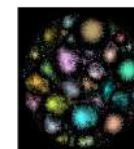
- Online fraudsters tend to use digitally modified ID and selfie
- Online fraudsters don't want to show their own faces
- Online fraudsters like to deploy attack in a large scale



ID Verification



Liveness detection



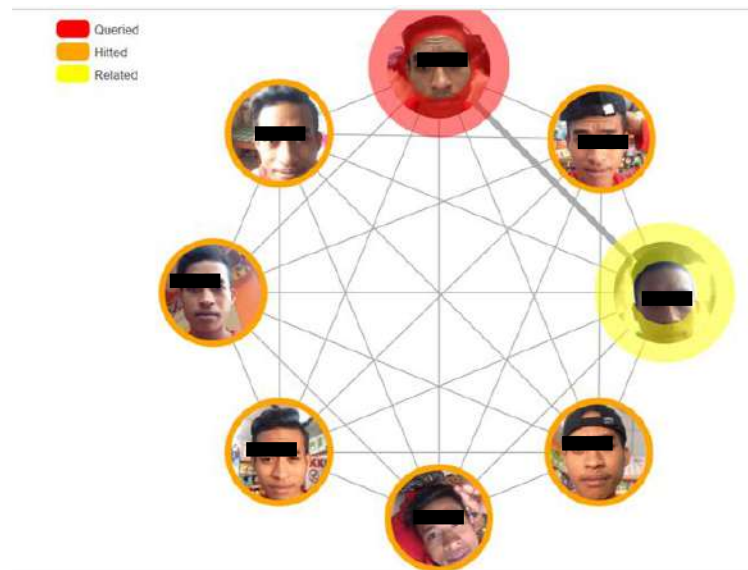
ID network

# ID network

Powerful AI-based analysis module  
for name, ID number, photo on ID,  
selfie and background repeat



Photo on ID repeat



Selfie repeat

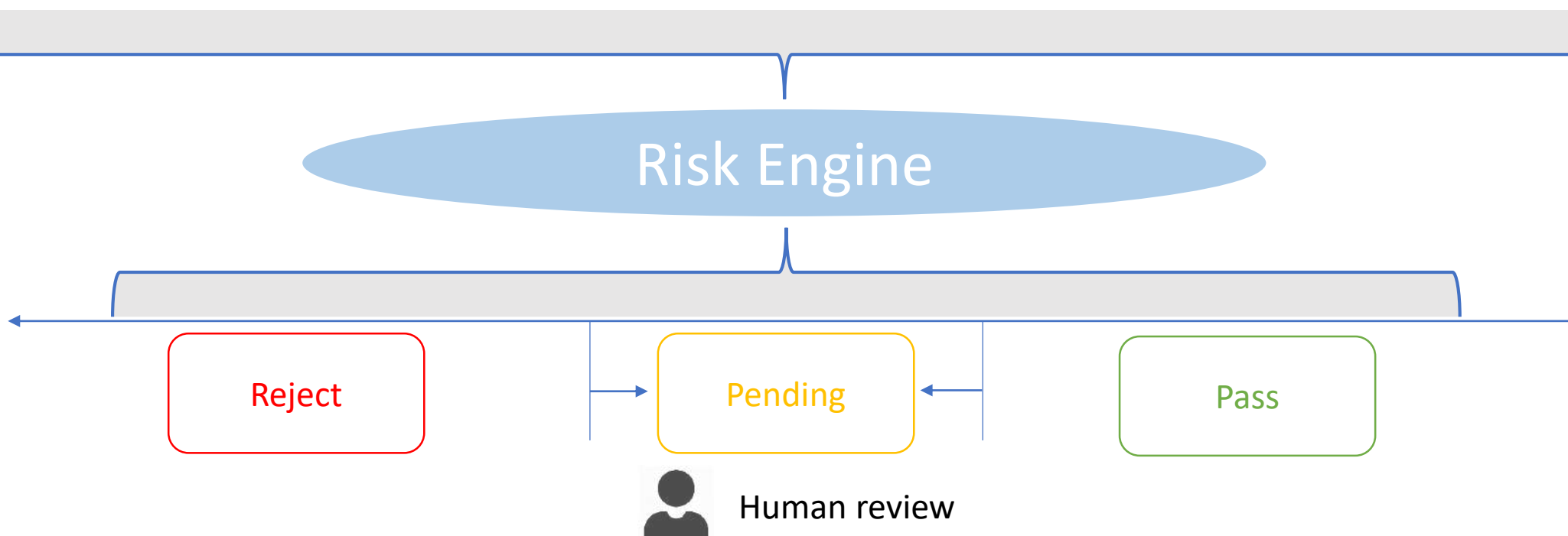
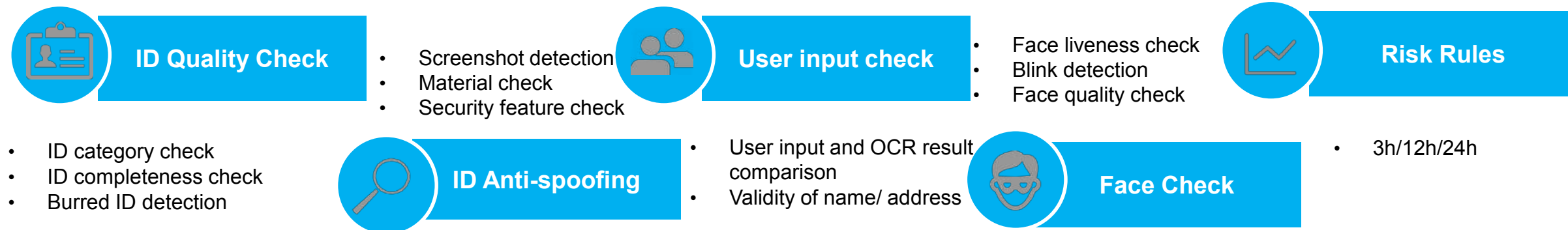


Selfie background repeat



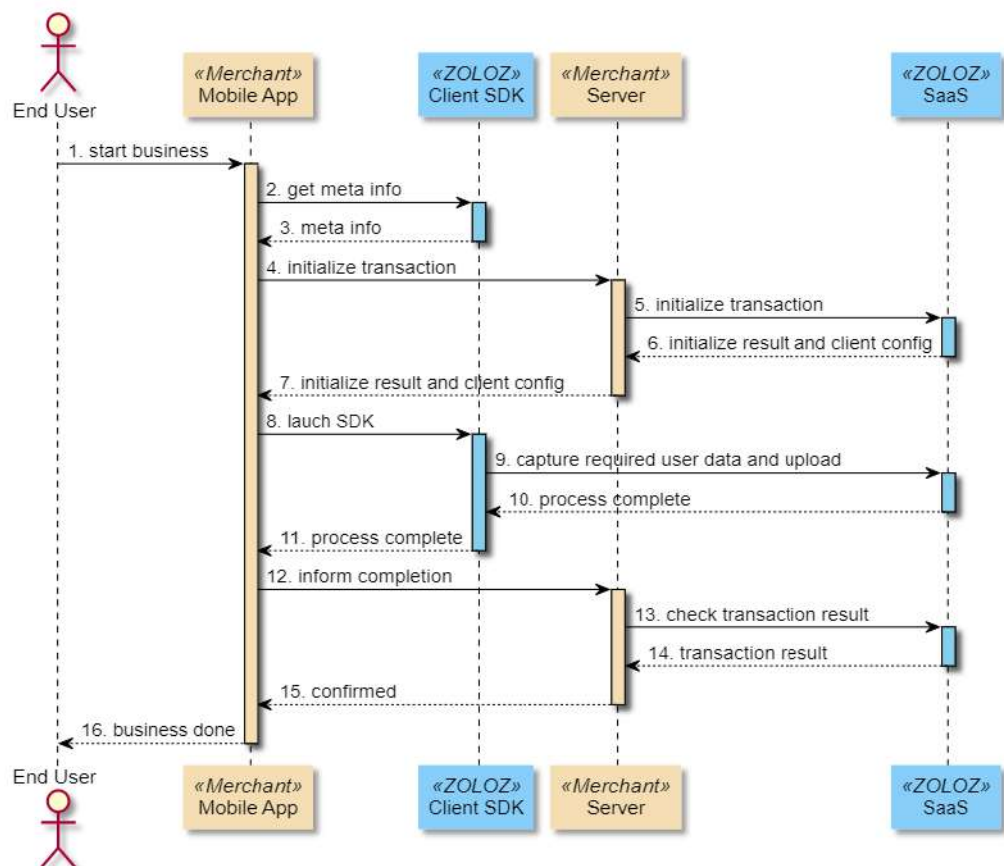


# Risk Based Approach

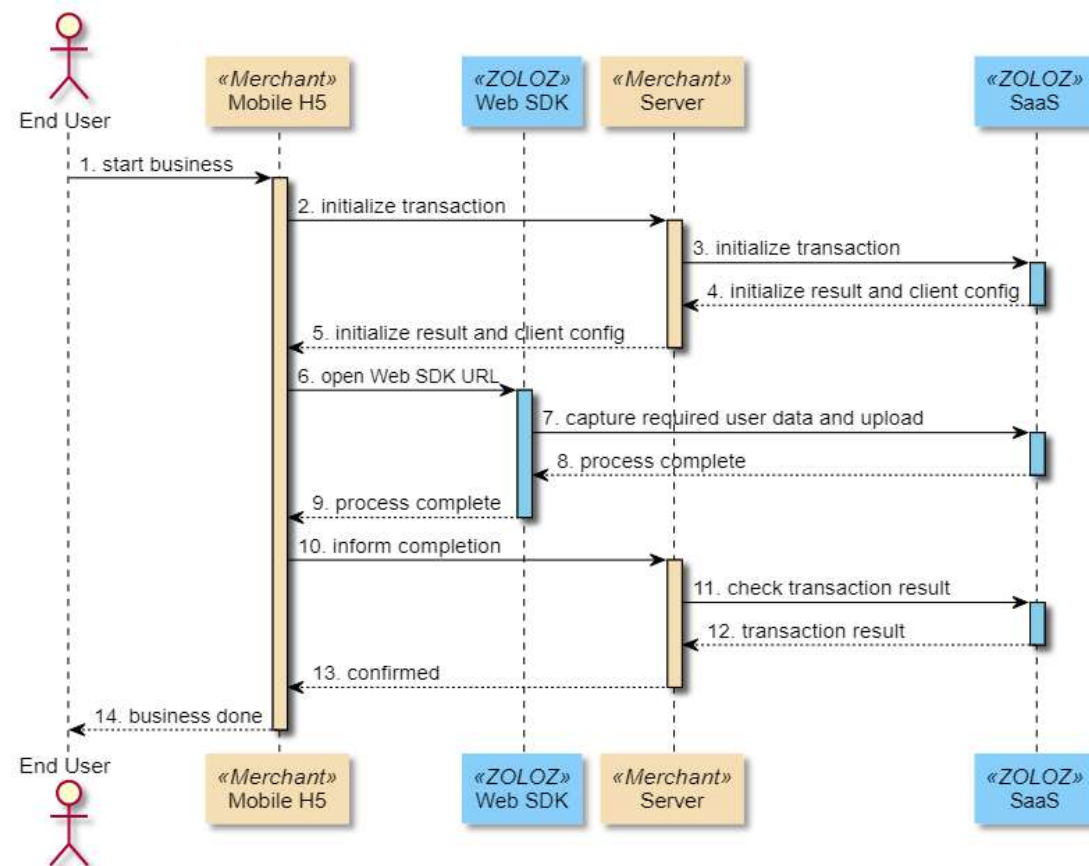


# Integration sequence diagram

## Mobile App SDK



## Mobile Web SDK



Results size: ~2MB



ZOLOZ Technical Documentation portal: <https://docs.zoloz.com/zoloz/saas/docs/yxzxgi>

# ZOLOZ Real ID Values



## Increased Compliance

With biometric verification, user identity is confirmed with more than 99.99% confidence



## Reduced Cost

Reduce up to 90% of manual effort for checking data.



## Faster Onboarding

Apply in 3 minutes, approved in 10 seconds



## Reduce Identity Fraud

Rich AI model and risk engine, identify frauds automatically



# ZOLOZ Certifications & Recognitions



ISO Information Security  
Management

ISO Presentation  
Attack Detection

Payment Card Industry  
Information Security  
Certification





Standard for Mobile  
Identity Technology  
(ISO TC68)



# ZOLOZ Real ID Case Study







## THE PROBLEM

-  Low conversion rate – 18%
-  High cost – XPHP per app
-  Long Turnaround time – 5 days
-  Identity fraud – Difficult to find







## THE SOLUTION

-  OCR & Auto ID Validation
-  Biometric and automatic
-  Automatic external checks
-  Comprehensive Risk Engine



## THE RESULT

-  Conversion up to 58%
-  Cost down by 96% per app
-  TAT down to 3 minutes
-  Far better than human

# Face Match and Liveness

 High Accuracy

**99.86+% Pass Rate**

0.1% False Acceptance Rate

 High Security

**99.9% Spoof Detection**

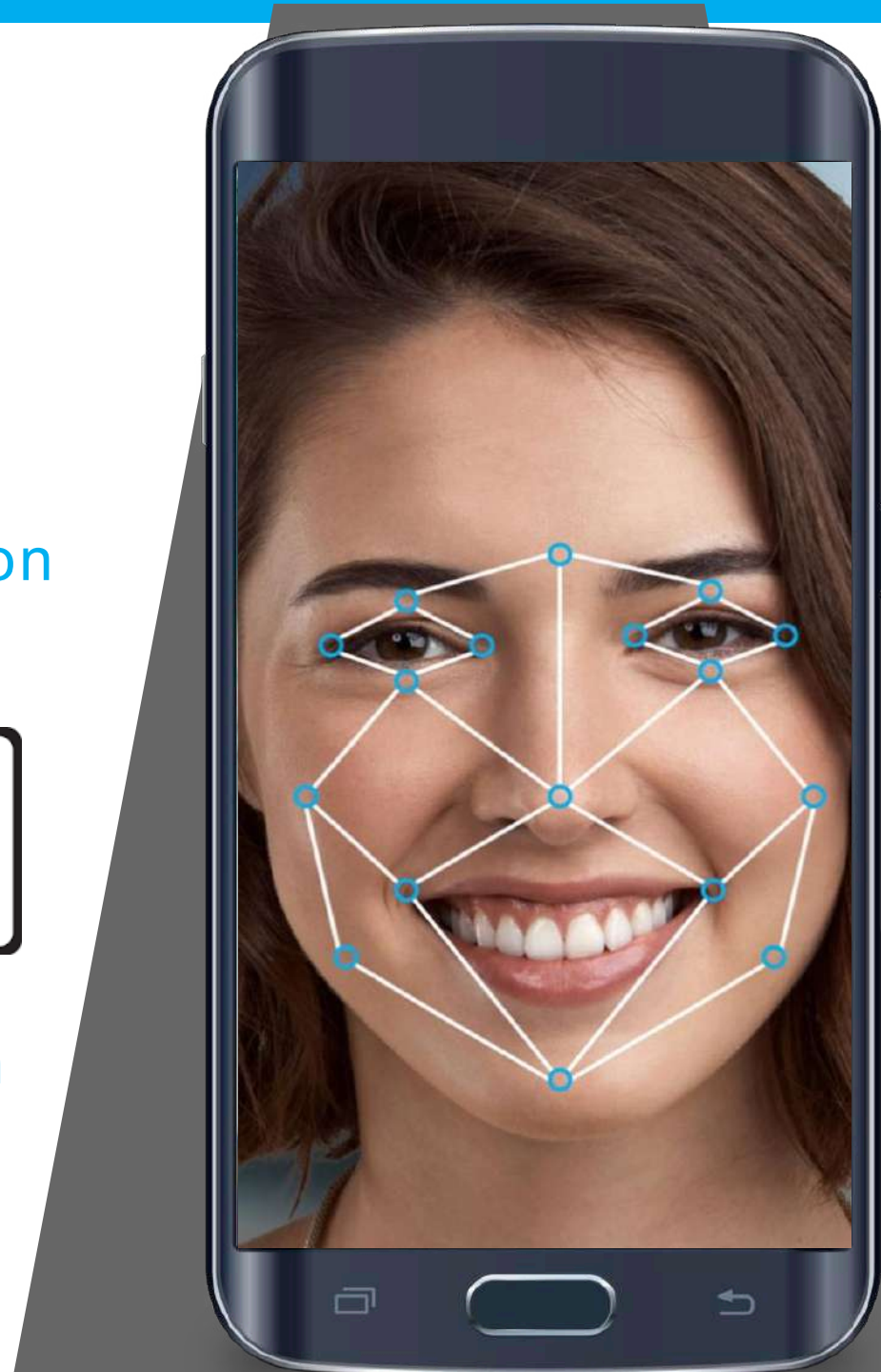
Detect Photo, Video and 3D Model



- ID face recognition



- ISO Presentation Attack Detection





A woman with curly hair is smiling and looking at a smartphone. The background is a gradient from blue on the left to red on the right. The text "Thank you!" is overlaid in the center.

**Thank you!**