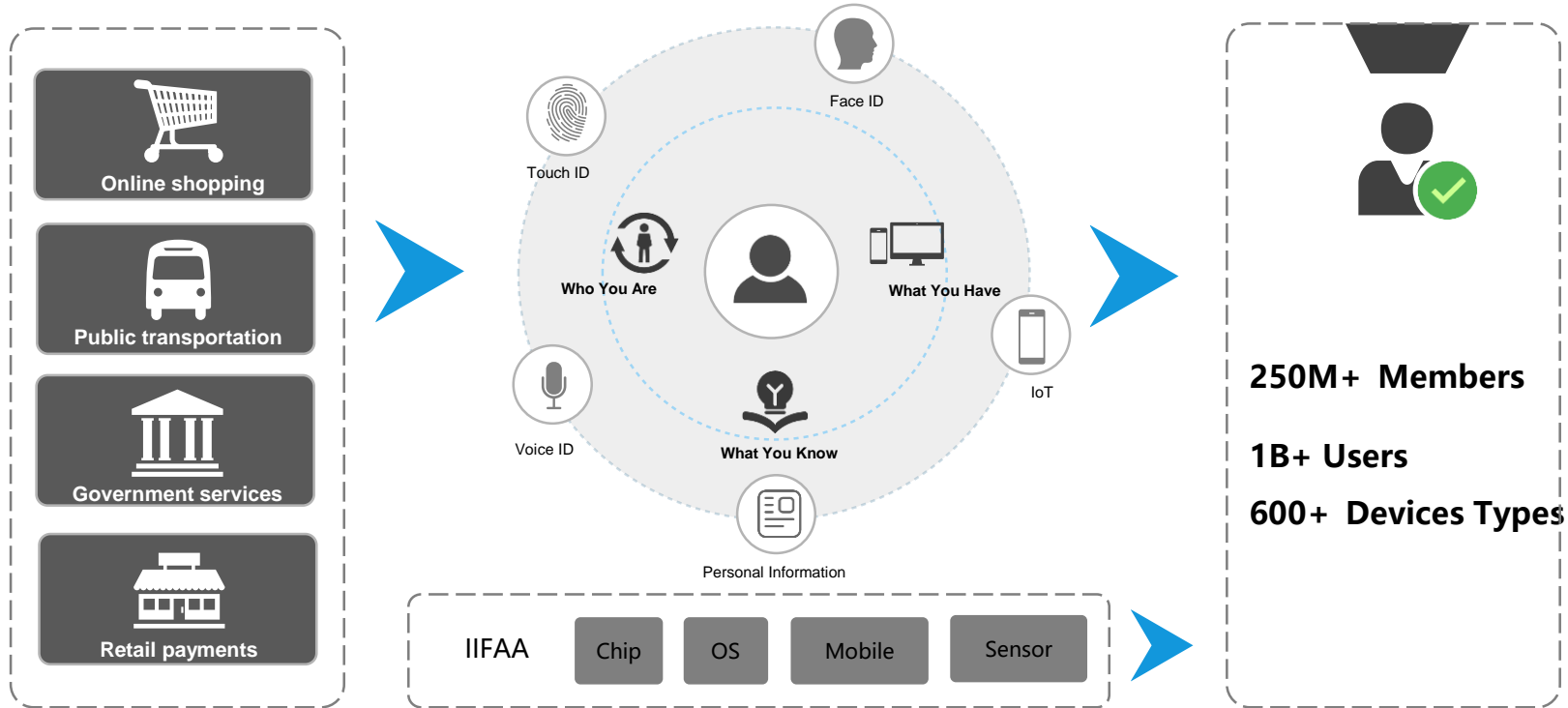# Digital ID usage-International Internet Finance Authentication Alliance (IIFAA)

蚂蚁金服
ANT FINANCIAL

Wenting Chang

Introduction of Digital identity

Online shopping

Public transportation

Government services

Retail payments

Face ID

Touch ID

Who You Are

What You Have

Voice ID

What You Know

IoT

Personal Information

IIFAA | Chip | OS | Mobile | Sensor

250M+ Members

1B+ Users

600+ Devices Types

IIFAA Introduction

➢ Objective: In order to satisfy the development of industry chain and meet the requirements of financial security, Ant Financial Services Group and industry chain partners established International Internet Financial identity Alliance (IIFAA) in June 2015. IIFAA provides a **neutral**, **convenient** and **secure** authentication methods to support the rapid development of Internet Finance, digital ID authentication inclusive. (http://ifaa.org.cn)
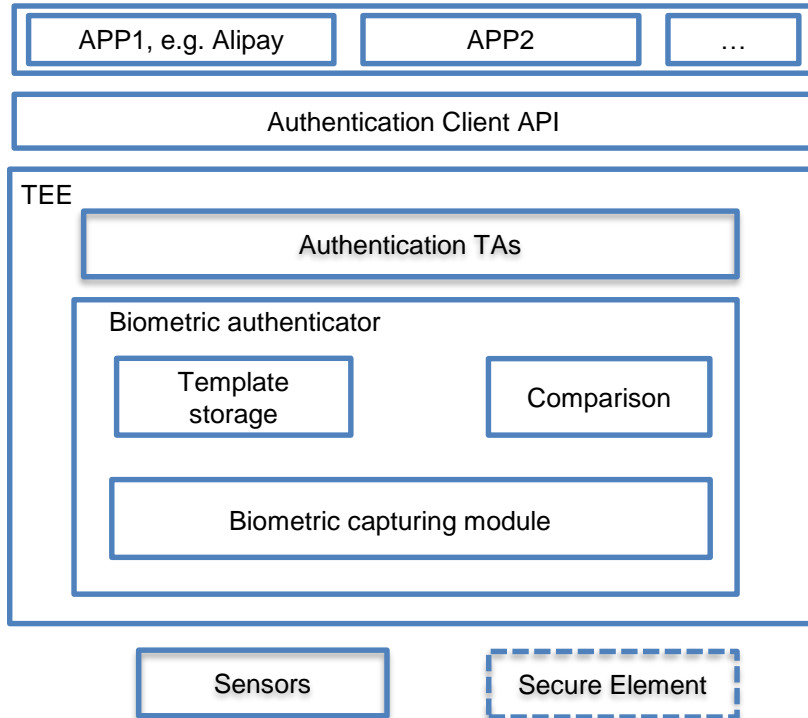

IFAA
ecosystem

220+ members
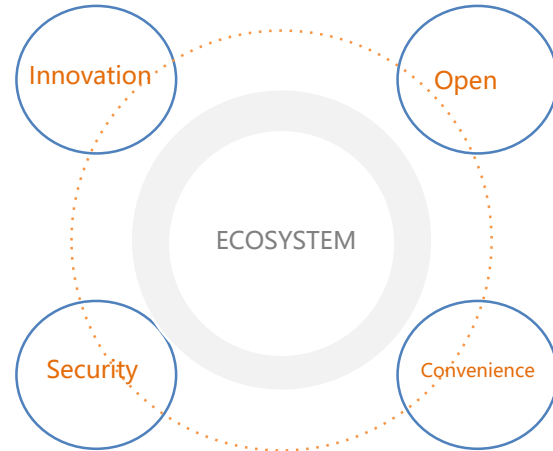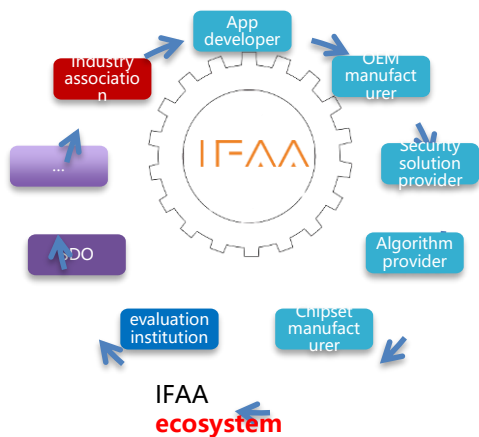
System architecture – Remote biometric authentication & ID authentication
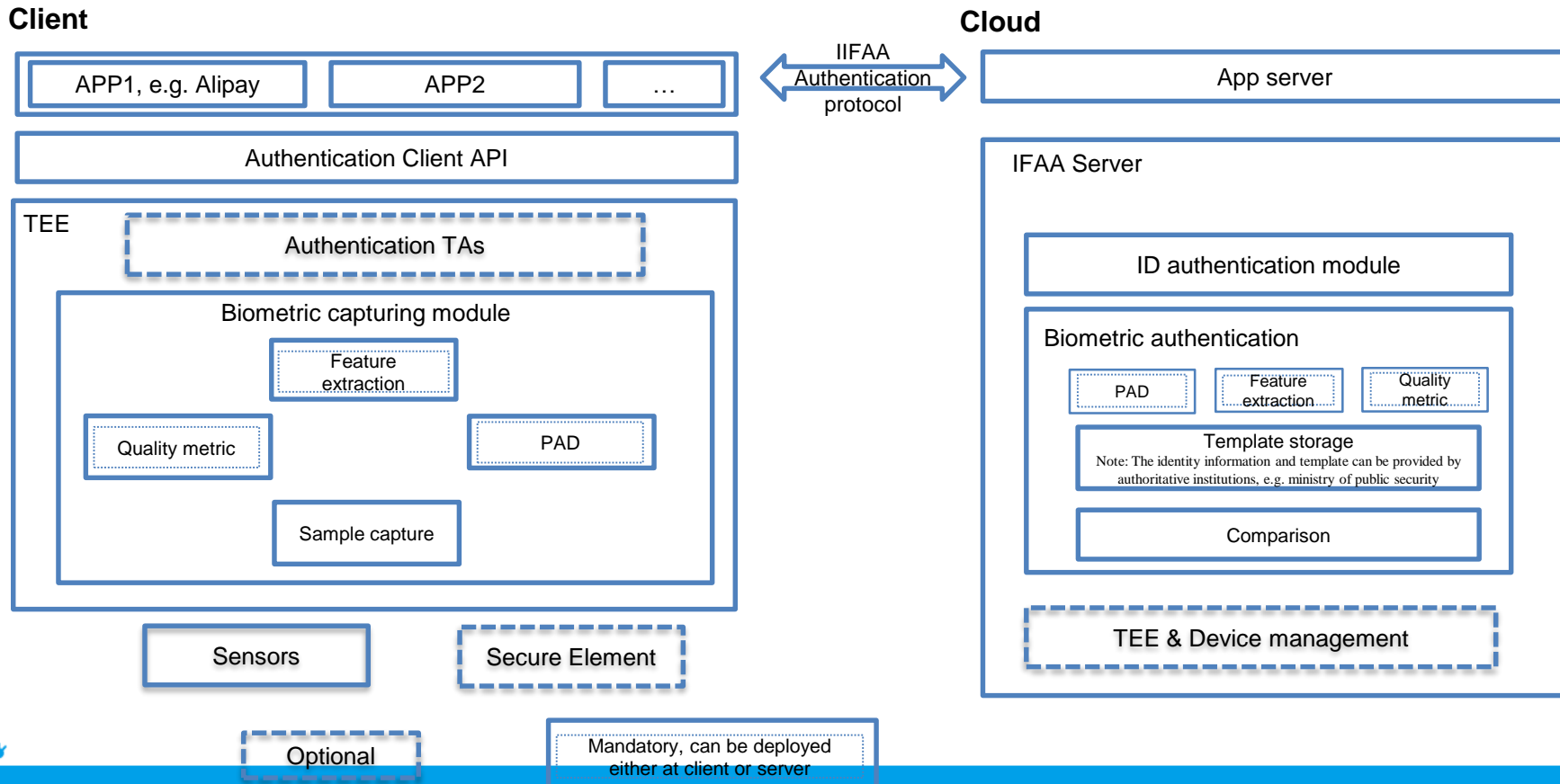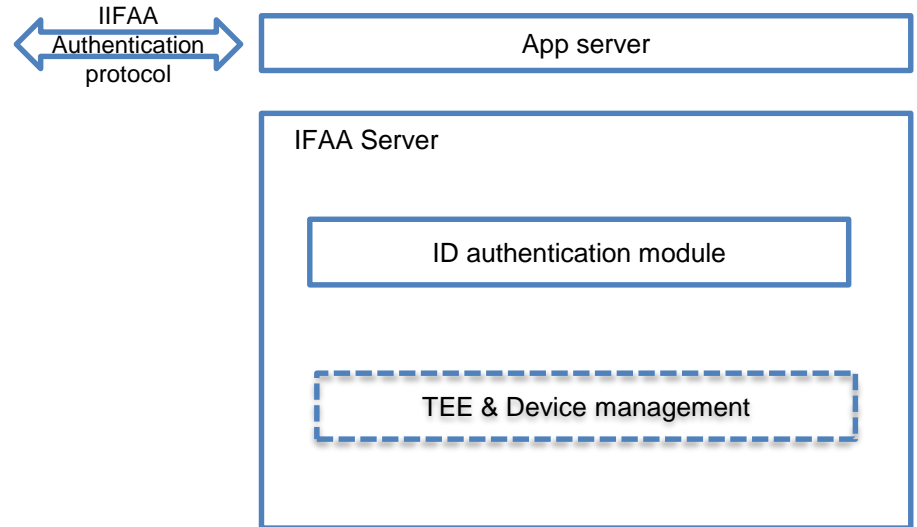
System architecture – Local biometric authentication & remote ID authentication
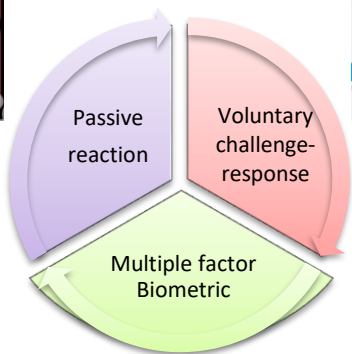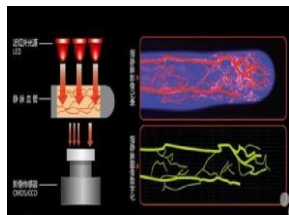
Client

Cloud

APP1, e.g. Alipay	APP2	…

IIFAA Authentication protocol

App server

Authentication Client API

TEE

Authentication TAs

Biometric authenticator

Template storage	Comparison

Biometric capturing module

IFAA Server

ID authentication module

TEE & Device management

Sensors

Secure Element

Liveness detection

Passive reaction

Voluntary challenge-response

Multiple factor Biometric
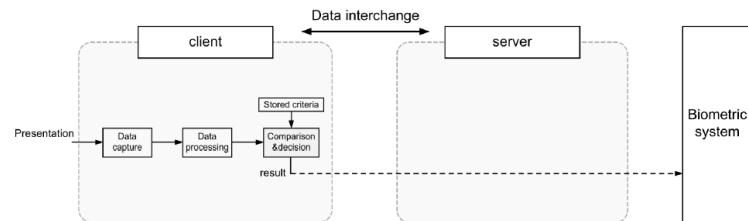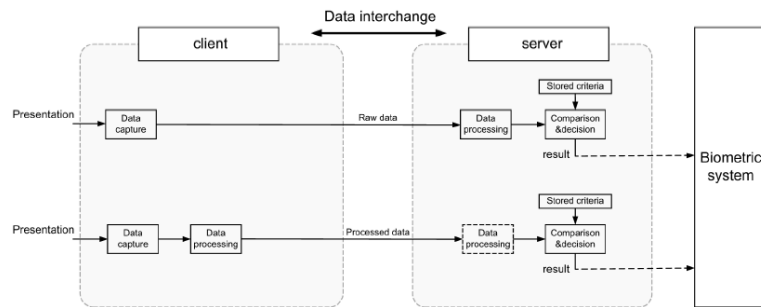
Local Mode

Remote Mode

Security

➤ TEE/SE provide secure execution environment:
  - Biometric authenticator, Encryption, Decryption, Signature
  - TEE, SE

➤ Security channel between IIFAA client and IIFAA server:
  - Confidentiality, integrity, non-repudiation
  - Timestamp/nonce to avoid replay attack

Abnormal Detection

TEE/SE

IFAA

Rigorous Interaction Procedure

Privacy Protection
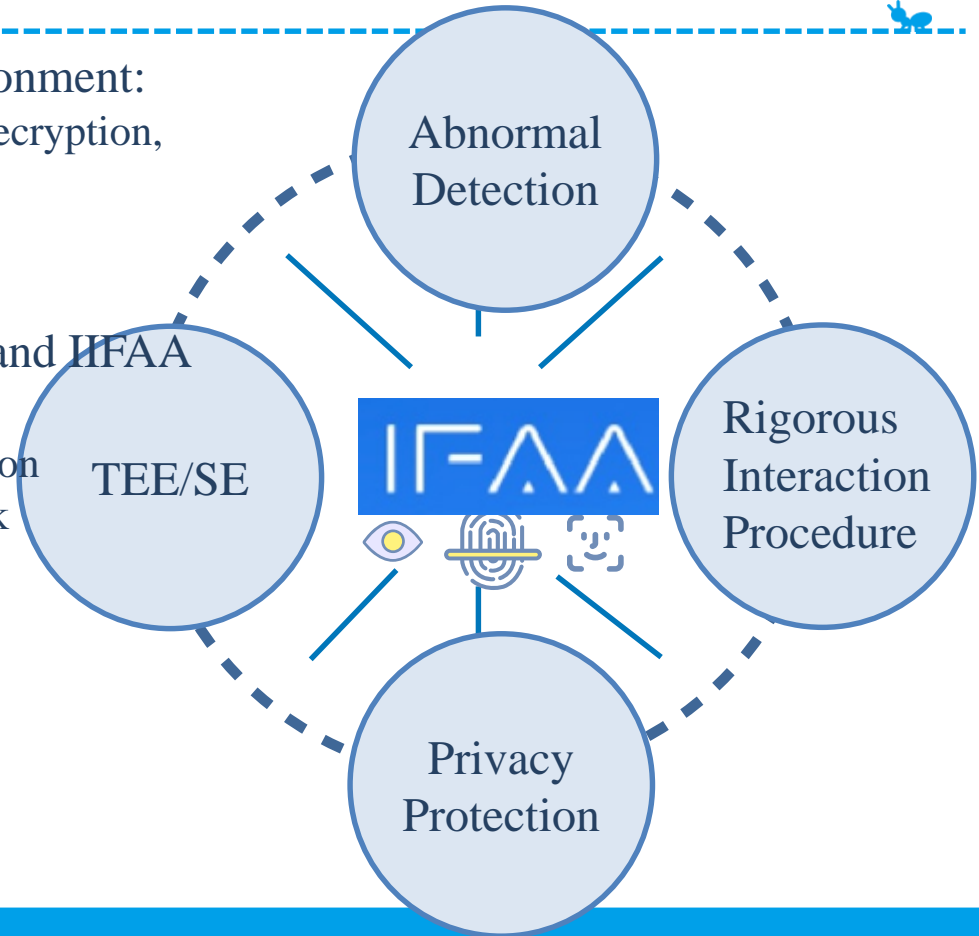
Usage in curb CORVID-19

Identity validation in daily punch clock and health code illustration

Red   Yellow   Green

Unmanned retail machine to enable untouchable shopping

Digital ID for IoT, e.g. car keys

Thanks!