

Korea's Mobile National ID based on DID

CREATING VALUE, CONNECTING TRUST



CONTENTS

KOMSCO IS SECURITY COMPAY CREATING VALUE AND TRUST FOR BETTER LIFE.
WE CONNECTING PEOPLE'S TRUST WITH DEVELOPING STATE THE OF ART SECURITY TECHNOLOGY
THROUGH CEASELESS EFFORTS

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② MOBILE ID

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DIGITAL ID
KOMSCO
2023



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COMPANY OVERVIEW

THE FIRST CHAPTER

KOMSCO IS SECURITY COMPAY CREATING VALUE AND TRUST FOR BETTER LIFE
WE CONNECTING PEOPLE'S TRUST WITH DEVELOPING STATE THE OF ART
SECURITY TECHNOLOGY THROUGH CEASELESS EFFORTS

THE FIRST CHAPTER

PRODUCTS



DIGITALIZATION

BIG STEP
TO THE FUTURE
ICT SECURITY
PROVIDER

ICT SOLUTIONS

1 DECENTRALISED NATIONAL ID SOLUTION WITH STRONG PROTECTION

MOBILE DID SOLUTION



2 TRUSTWORTHY MOBILE TRANSACTION (PAYMENT) SOLUTION

MOBILE PAY SOLUTION



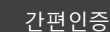
3 SECURITY SOLUTION FOR EVERYWHERE

IoT SECURITY SOLUTIONS



4 TRUSTWORTHY PUBLIC ID AUTHENTICATION BY GOVERNMENT

ONLINE ID AUTHENTICATION



5 ENHANCE NFT MARKET INTEGRITY FOR ELIABLE TRADING ENVIRONMENT

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6 VARIOUS MOBILE SERVICE PLATFORM FOR PUBLIC SERVICE USERS



MOBILE PUBLIC SERVICES



BUSINESS MILESTONE

THE FIRST CHAPTER

KOMSCO IS SECURITY COMPAY CREATING VALUE AND TRUST FOR BETTER LIFE
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SECURITY TECHNOLOGY THROUGH CEASELESS EFFORTS

1951

ESTABLISH



1971

EXPORT



2019

DATA CENTER & SMART CENTER



2022

- MOBILE NATIONAL ID (Driver's License)
- DIGITAL CIVIL SERVICE CARD



2020

- DIGITAL PAYMENT SYSTEM(Chak)
- ID PRODUCTS RENEWAL



KOREAN NATIONAL ID DEVELOPMENT

THE FIRST CHAPTER

KOMSCO IS SECURITY COMPAY CREATING VALUE AND TRUST FOR BETTER LIFE
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SECURITY TECHNOLOGY THROUGH CEASELESS EFFORTS



Paper Certificate



Plastic ID Card



Advanced Plastic ID Card(with IC Chip)

Mobile ID(Digital ID)



DIGITAL ID
KOMSCO
2023

2

MOBILE ID

THE SECOND CHAPTER

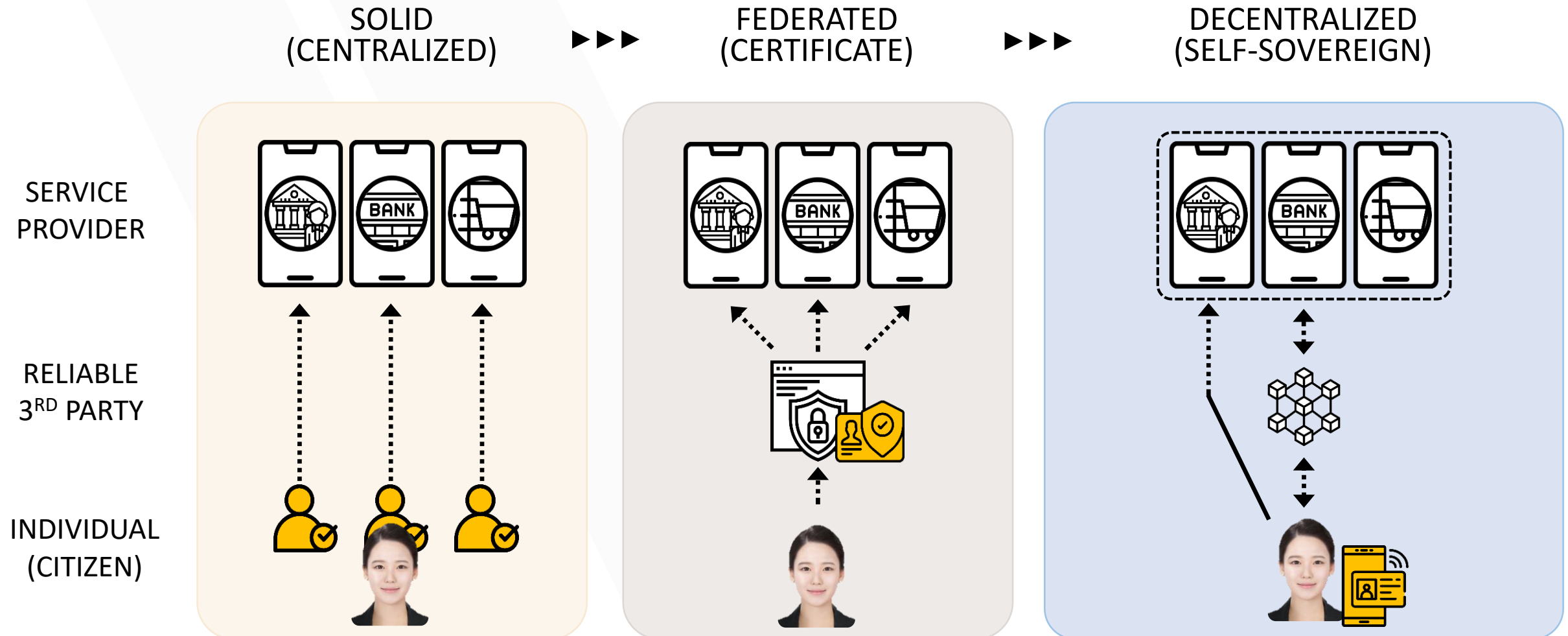
MOBILE ID ALLOWS CITIZENS TO ENJOY THE BENEFITS FROM
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MOBILE PHONE AND THE OTHER DEVICES CAN PROVIDE HIGHLY SECURED DIGITAL IDENTITY
CAPABLE OF AUTHENTICATING CITIZENS



MOBILE ID PARADIGM SHIFT

THE SECOND CHAPTER

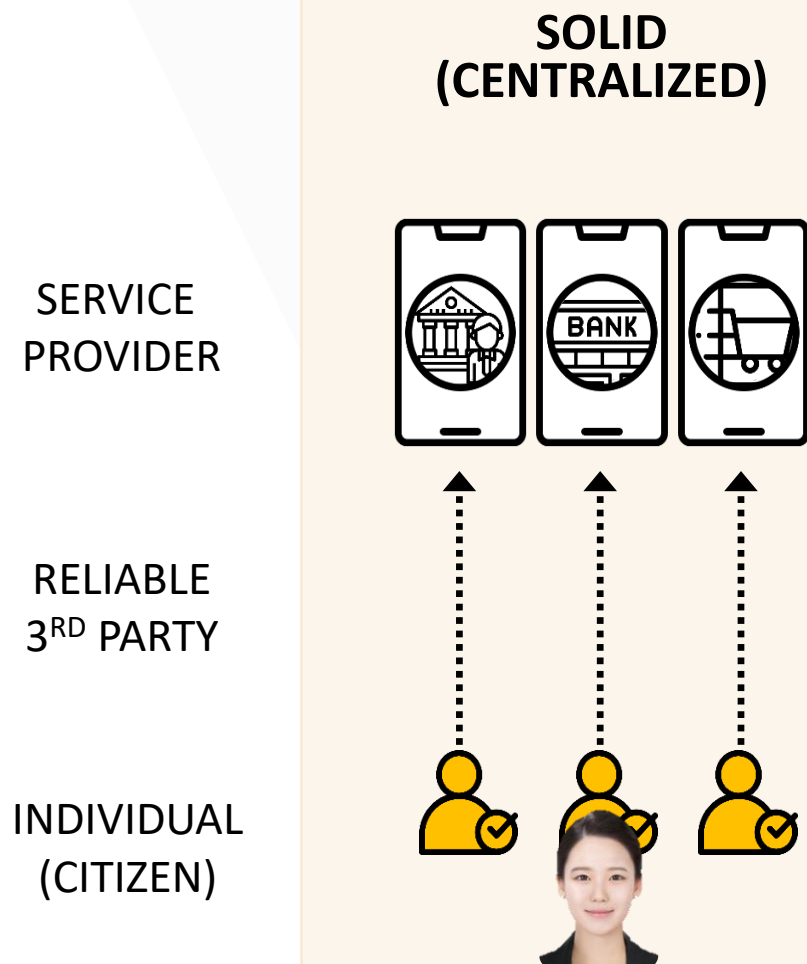
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**SOLID
(CENTRALIZED)**



**FEDERATED
(CERTIFICATE)**



**DECENTRALIZED
(SELF-SOVEREIGN)**

Personal information is stored and managed
by each SERVICE PROVIDERS

- Individuals should provide unencrypted personal info. to Service Providers and should memorize numerous IDs and PWs issued by each Service provider
 - Service Providers have burden of storing and managing massive personal info.
 - Still widely used system
-

MOBILE ID PARADIGM SHIFT

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SOLID
(CENTRALIZED)



FEDERATED
(CERTIFICATE)



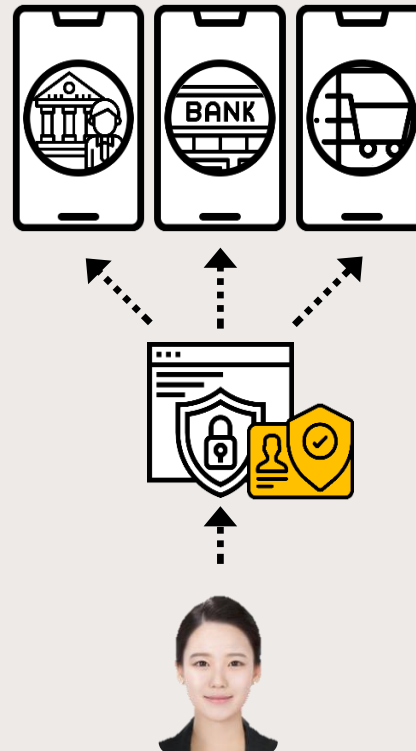
DECENTRALIZED
(SELF-SOVEREIGN)

SERVICE
PROVIDER

Personal information
is stored and managed
by RELIABLE 3RD
PARTY

RELIABLE
3RD PARTY

INDIVIDUAL
(CITIZEN)



- Reliable 3rd party provide encrypted ID authentication method = **certificate**
- Personal information is become centralized
→ Massive information attack can be occur
- Currently the most used scheme

MOBILE ID PARADIGM SHIFT

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FEDERATED
(CERTIFICATE)



DECENTRALIZED
(SELF-SOVEREIGN)

SERVICE
PROVIDER

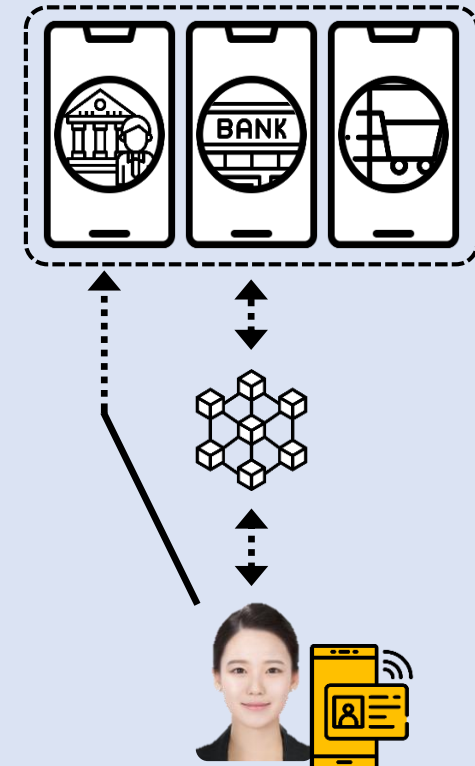
Personal information is fully owned by individuals

RELIABLE
3RD PARTY

- Individuals can select and provide only the information they need
→ Service providers can authenticate identity without storing & managing personal information

INDIVIDUAL
(CITIZEN)

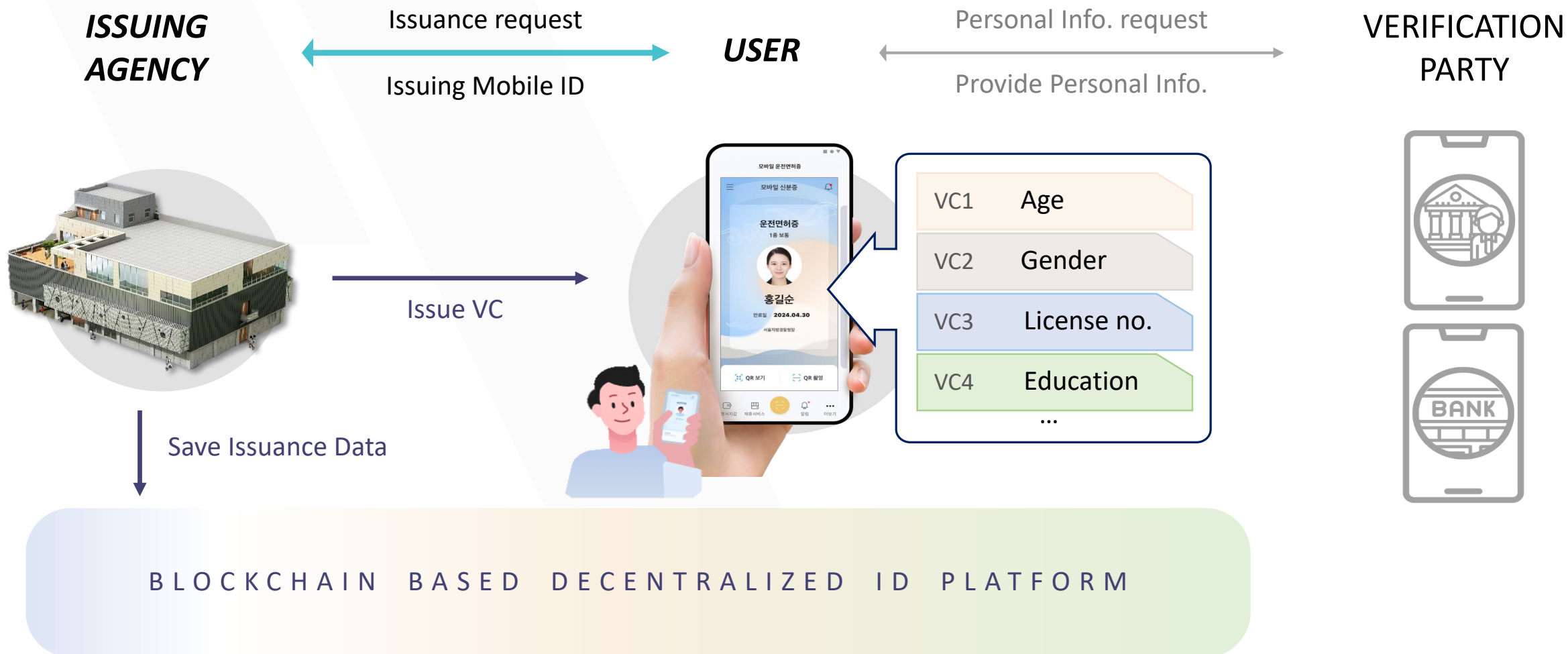
- All Duties and right for the handling of personal information is moved from reliable 3rd party to an individual or service providers
- The most secured way with Block Chain technology (DID; Decentralized ID)



MOBILE ID PARADIGM SHIFT

THE SECOND CHAPTER

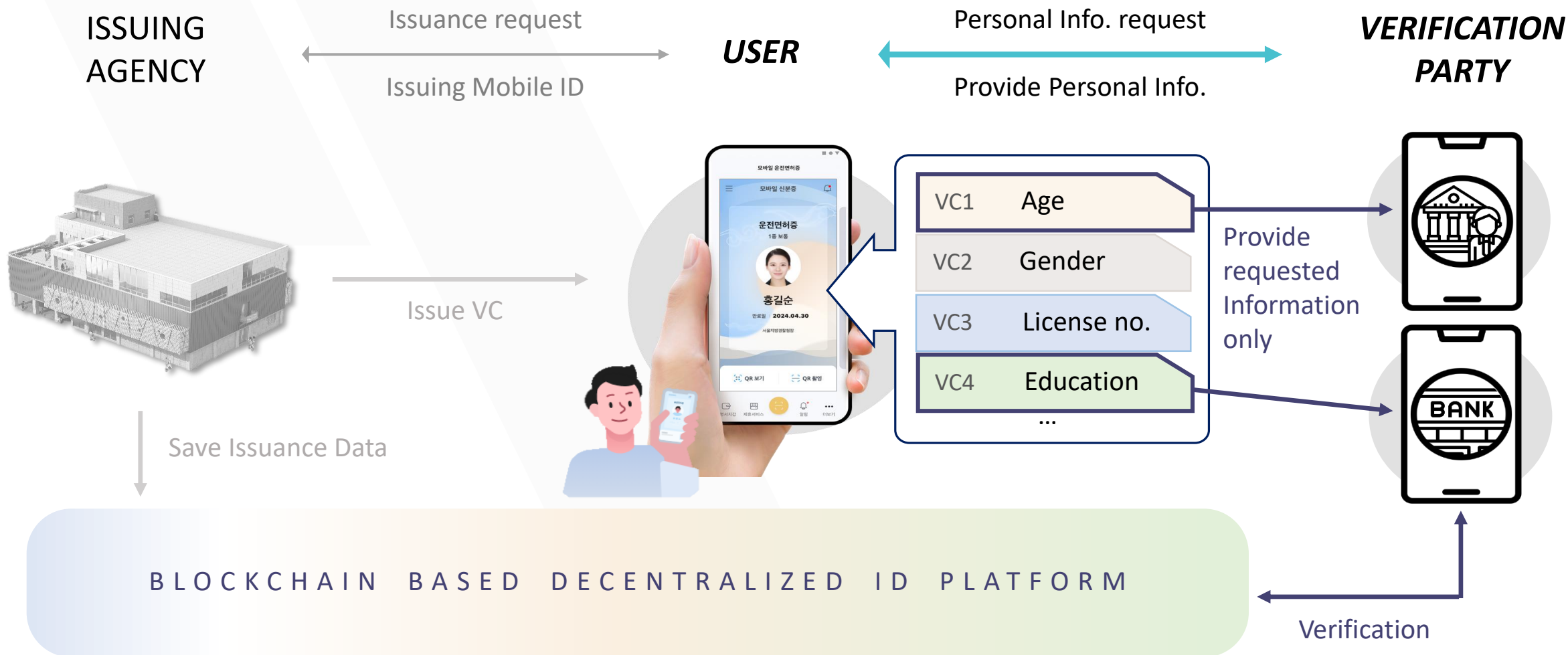
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MOBILE ID PARADIGM SHIFT

THE SECOND CHAPTER

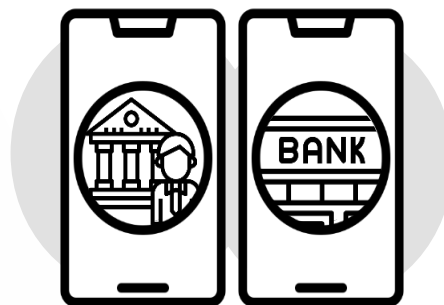
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SELF SOVEREIGN IDENTITY

Provide only the minimum amount
of personal Information
in online / offline environment

PROVIDE BETTER SERVICES WITH GURANTED SECURITY

Less the burden of security and cost for
ID authentication & Data protection
than private certification scheme

ADMINISTRATIVE EFFICIENCY IMPROVEMENT

The government will be able to
manage various national ID cards at
once by building a single mobile
national identity card platform.

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KOREA MOBILE ID PROJECT

THE THIRD CHAPTER

THE DIGITAL NID SERVICE OF THE KOMSCO UTILIZES THE LATEST BLOCKCHAIN TECHNOLOGY TO PROVIDE DECENTRALIZED NID SYSTEM IN WHICH THE SUBJECT OF PERSONAL INFORMATION DIRECTLY MANAGES BY EACH PERSON INDIVIDUALLY.



KOREA MOBILE ID PROJECT SCHEME

THE THIRD CHAPTER

THE DIGITAL NID SERVICE OF THE KOMSCO UTILIZES THE LATEST BLOCKCHAIN TECHNOLOGY TO PROVIDE DECENTRALIZED NID SYSTEM IN WHICH PERSONAL INFORMATION DIRECTLY MANAGES BY EACH PERSON IN

Pilot ('20)
Mobile
Public Officer ID

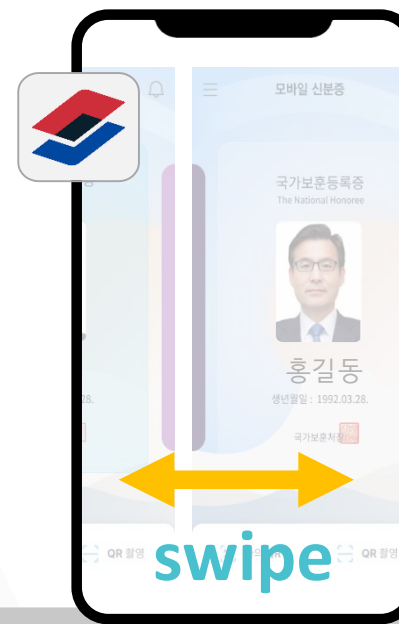


DID/blockchain based
Mobile Identification Platform

Phase1. Foundation ('21~'22)
Mobile
Driver's License



Phase2. Expansion ('23)
Mobile Veteran's
Certification



Phase4. Completion ('24)
Mobile
National ID

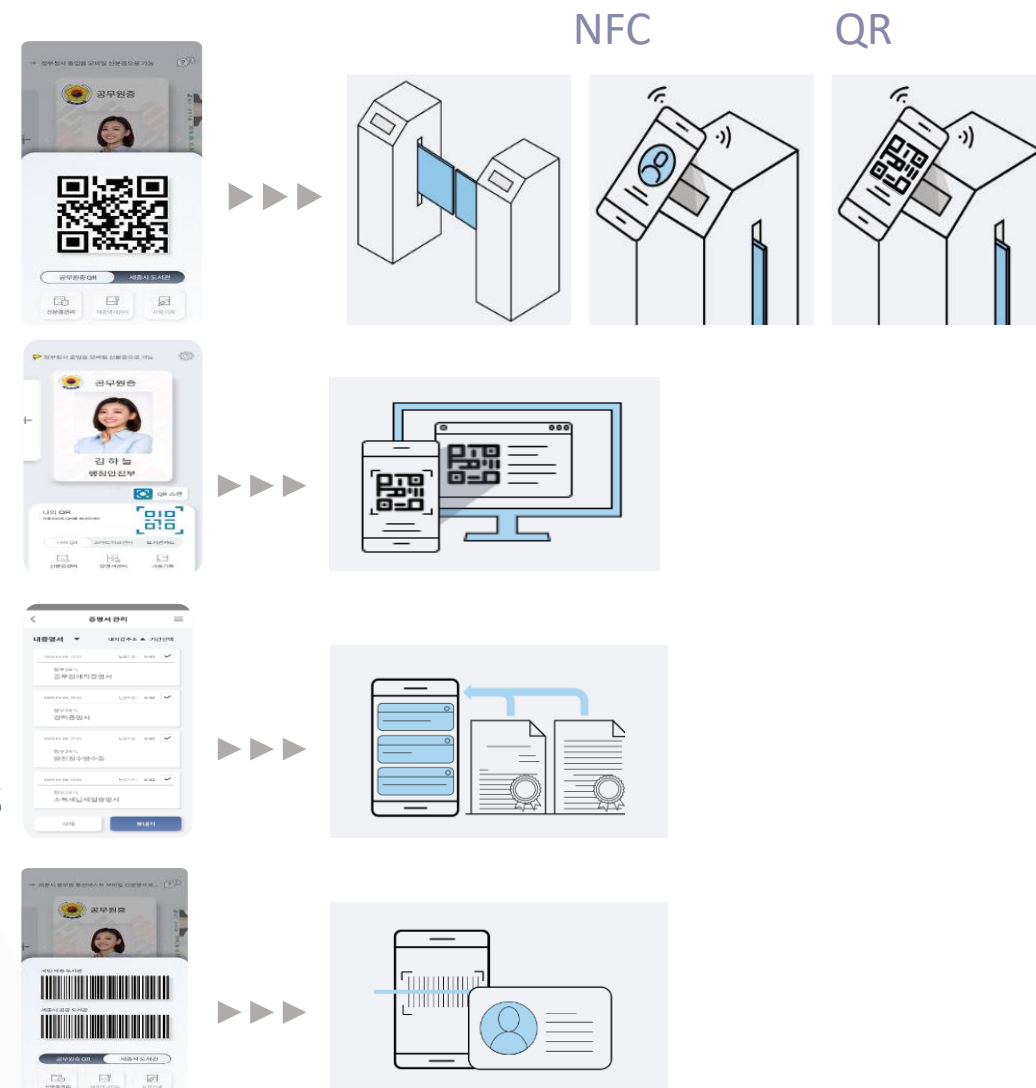
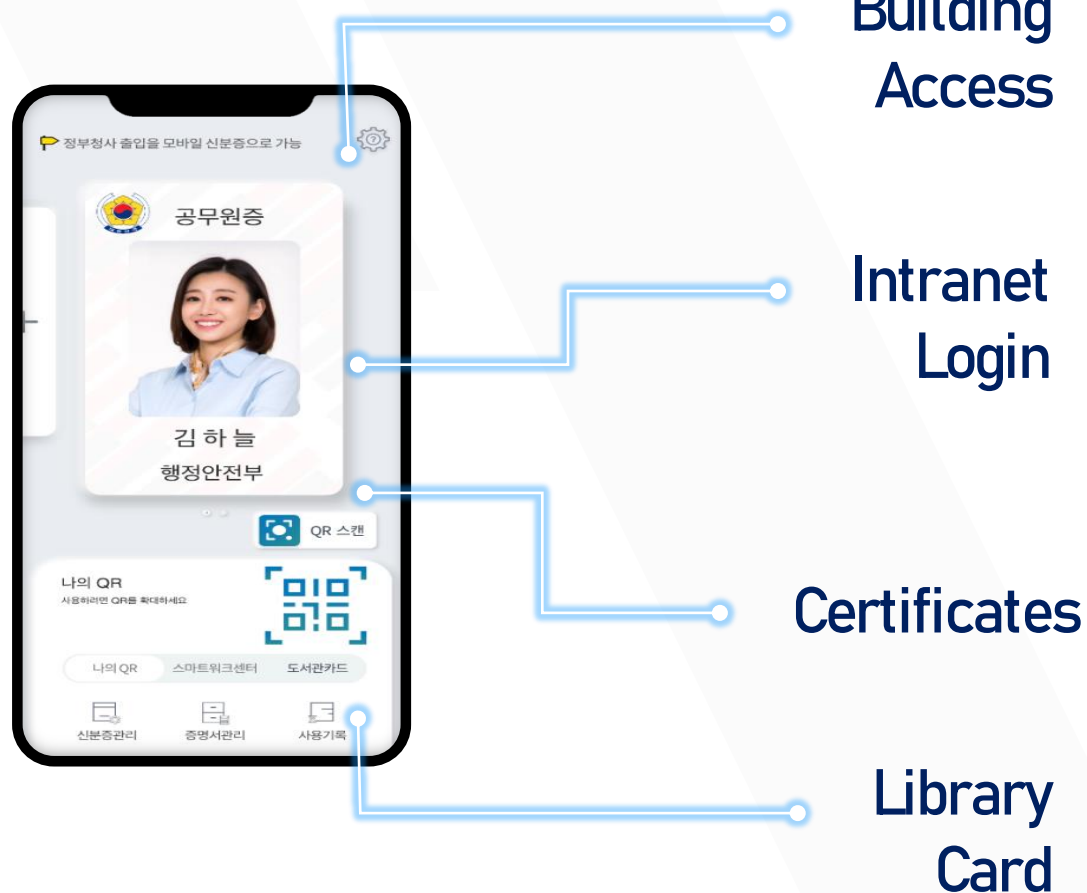


DID/blockchain-based National ID card common platform

KOREA MOBILE ID PROJECT : Public Officer ID Pilot

THE THIRD CHAPTER

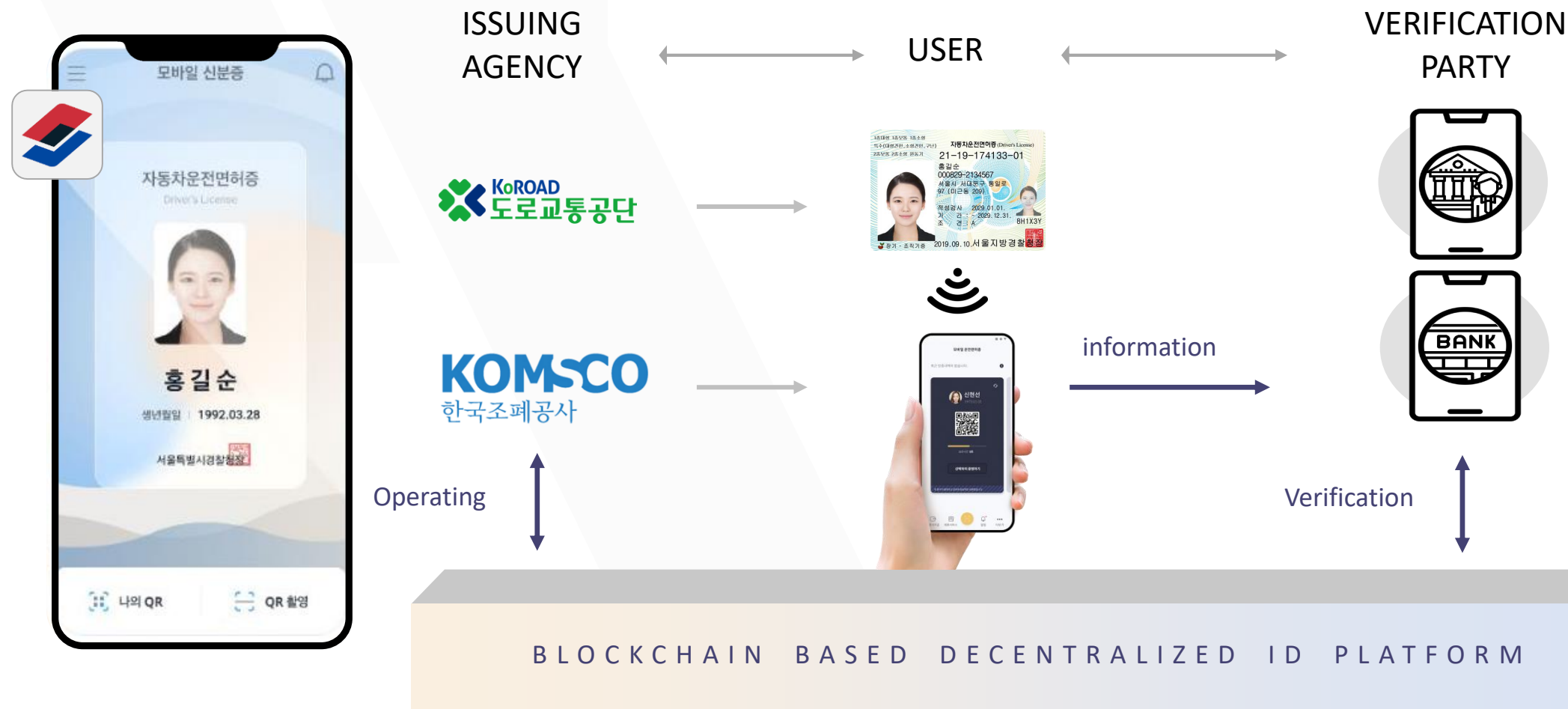
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KOREA MOBILE ID PROJECT : Driver's License

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KOREA MOBILE ID PROJECT : Driver's License

THE THIRD CHAPTER

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Is DID/Blockchain secured enough?

	Low (level1)	Substantial (level2)	High (level3)
Identity assurance level (IAL)	Self-asserted identity (e.g., email account creation on web), no collection, validation or verification of evidence.	Remote or in-person identity proofing (e.g., provide credential document for physical or backend verification with authoritative source), address verification required, biometric collection optional	In-person (or supervised remote) identity proofing, collection of biometrics and address verification mandatory.
Authentication assurance level (AAL)	At least 1 authentication factor—something you have, know, or are (e.g., password or PIN)	At least 2 authentication factors (e.g., a token with a password or PIN)	At least two different categories of authentication factors and protection against duplication and tampering by attackers with high attack potential (e.g., embed cryptographic key material in tamper-resistant hardware token + PIN, biometrics with liveness detection + PIN/smart card)



OPTIONAL

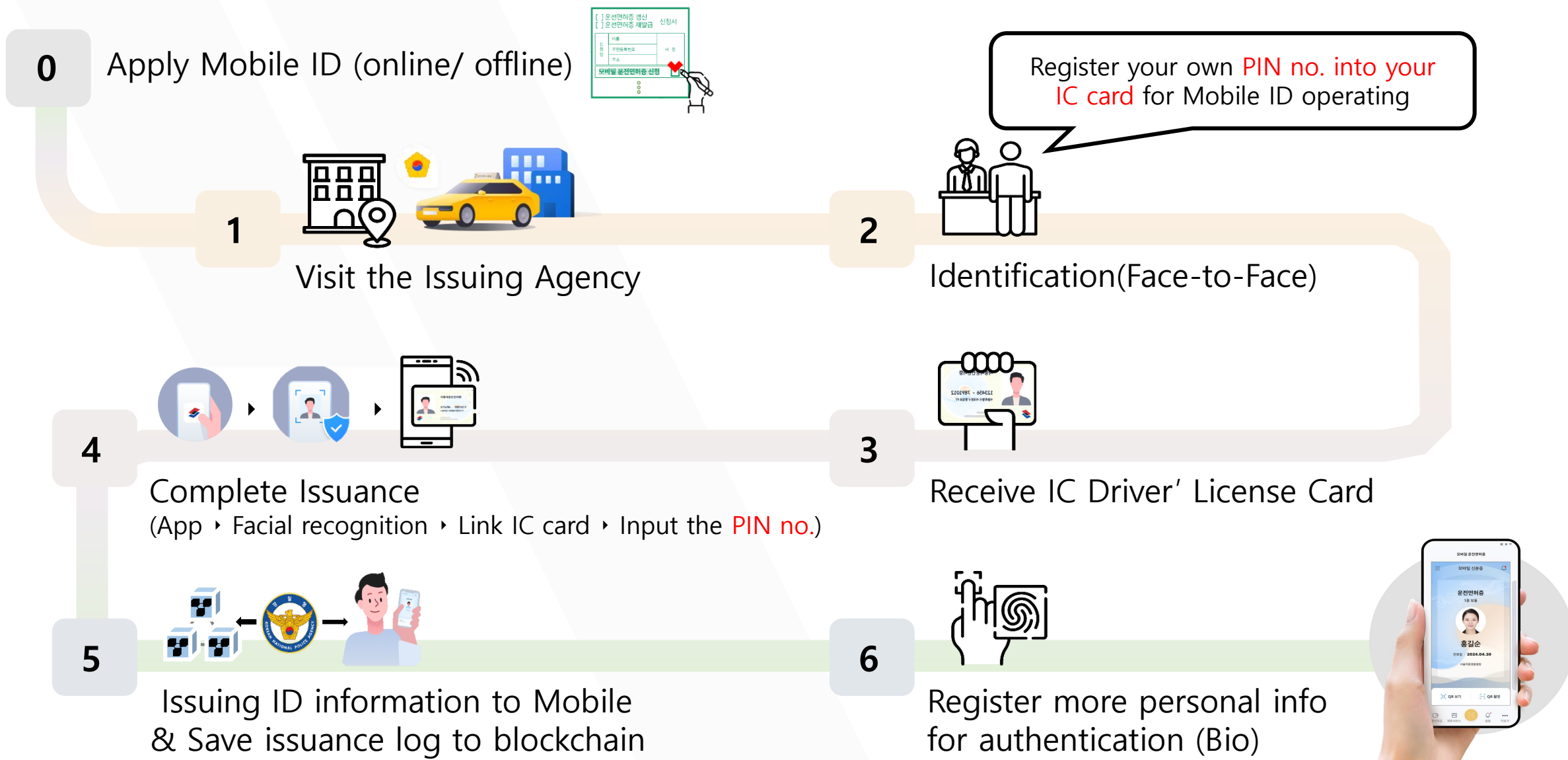


MANDATORY



COMMON
CRITERIA
CERTIFIED
EAL5+

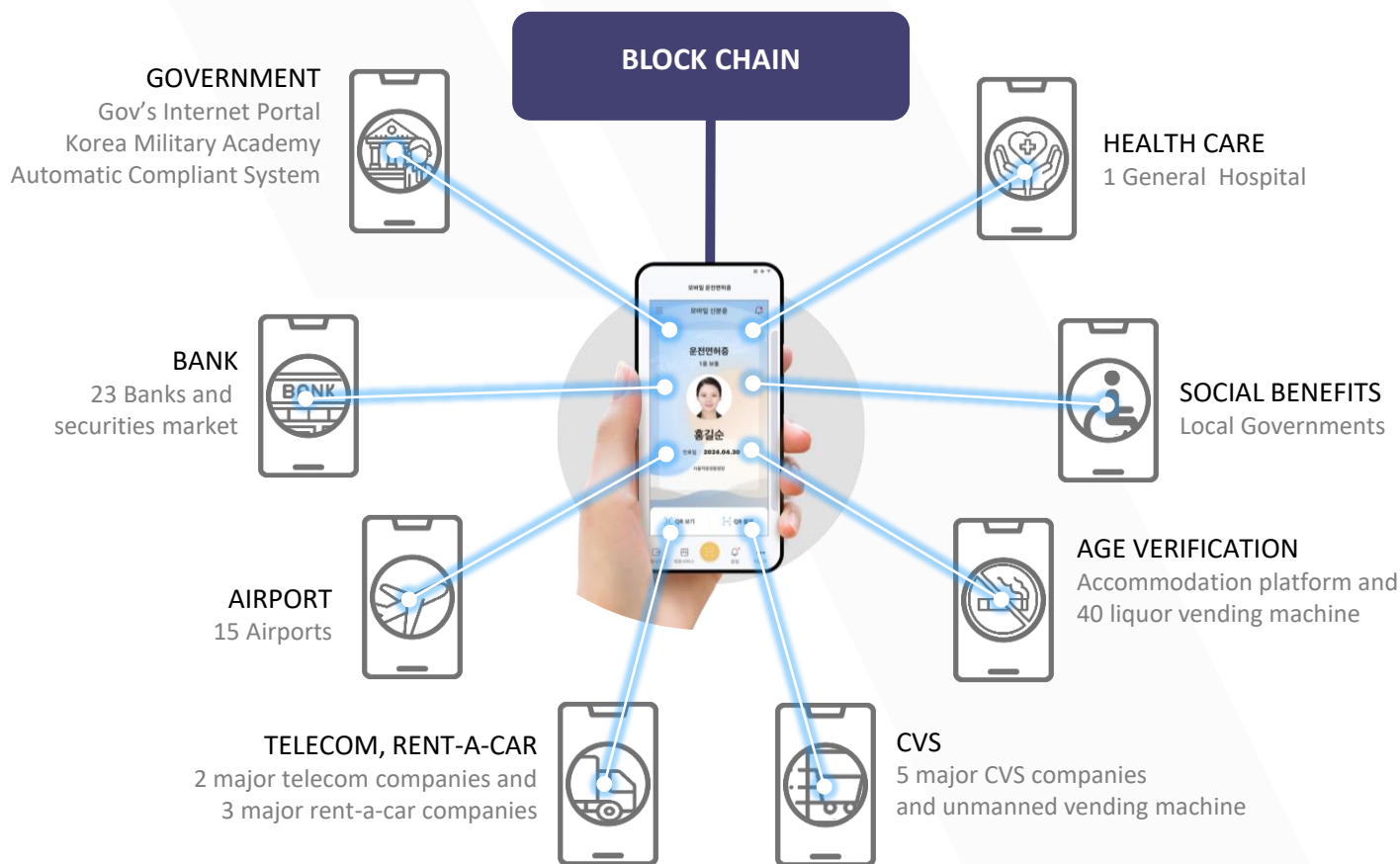
KOREA MOBILE ID PROJECT : Driver's License issuing process



MOBILE ID SERVICE EXPANTION

THE SECOND CHAPTER

MOBILE ID ALLOWS CITIZENS TO ENJOY THE BENEFITS FROM GOVERNMENT ISSUED TRUSTED DIGITAL ID AS A COMPLEMENT TO THE PHYSICAL ID
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CURRENT SERVICES

- Identification for public service
- Age verification at convenience stores
- Unmanned retail stores
- Identification for mobile phone register
- Website Log-in service Finance service

EXPANDING PLAN

- Public sector(Immigration fast track)
- Mobility
- Finance(Second financial sector)
- Finance(Credit cards)

KOREA MOBILE ID PROJECT : Mobile Veteran's Certification

THE THIRD CHAPTER

THE DIGITAL NID SERVICE OF THE KOMSCO UTILIZES THE LATEST BLOCKCHAIN TECHNOLOGY TO PROVIDE DECENTRALIZED NID SYSTEM IN WHICH THE SUBJECT OF PERSONAL INFORMATION DIRECTLY MANAGES BY EACH PERSON INDIVIDUALLY.

ONE Application



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USER CASES

THE FOURTH CHAPTER

INTRODUCTION OF MOBILE ID WILL ENABLE PEOPLE TO ENJOY VARIOUS AUTHENTICATION SERVICES
BASED ON THE STRONG SECURITY IN A MOST FAMILIAR AND CONVENIENT WAY



User Case 1 : QR Presentation

THE FOURTH CHAPTER

INTRODUCTION OF MOBILE ID WILL ENABLE PEOPLE TO ENJOY VARIOUS AUTHENTICATION SERVICES
BASED ON THE STRONG SECURITY IN A MOST FAMILIAR AND CONVENIENT WAY



Police Officer



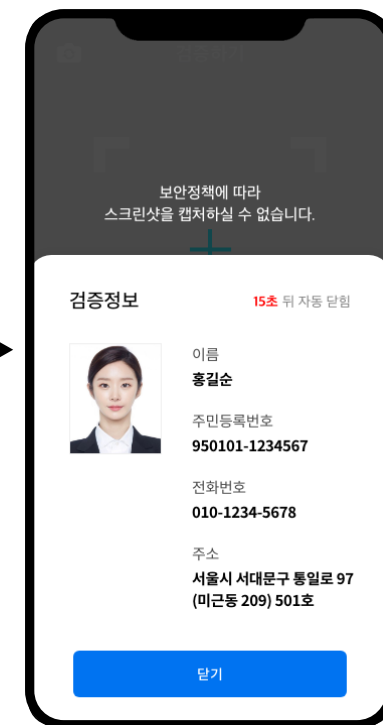
Flight Gate
(Airport)



Store



Open
application



User Case 2 : QR Scanning

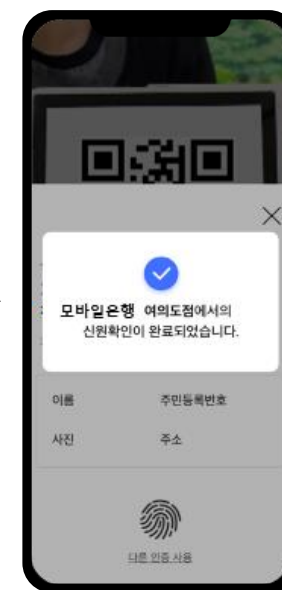
THE FOURTH CHAPTER

INTRODUCTION OF MOBILE ID WILL ENABLE PEOPLE
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BASED ON THE STRONG SECURITY
IN A MOST FAMILIAR AND CONVENIENT WAY

Vending
Machine



Reception
Machine

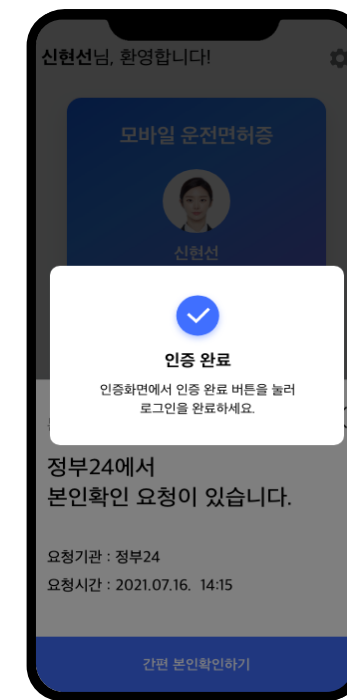
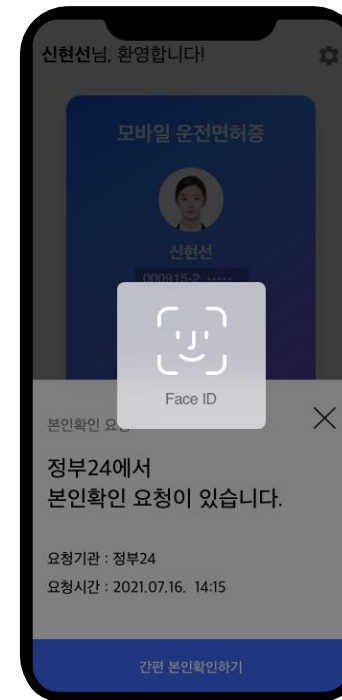
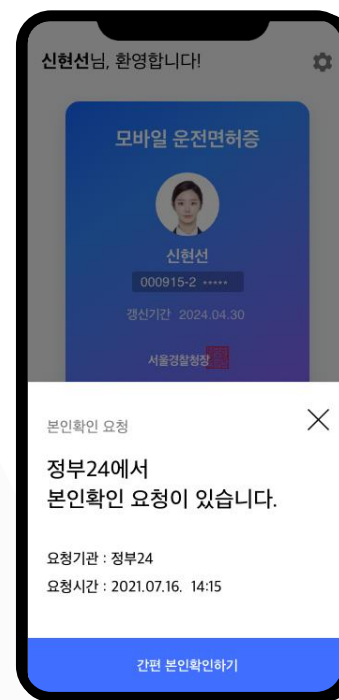
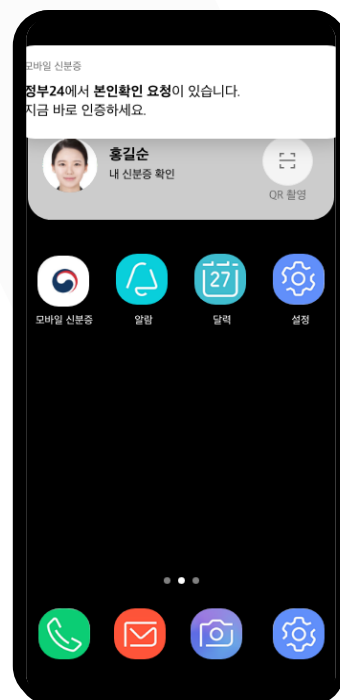


User Case 3 : Notification Message

THE FOURTH CHAPTER

INTRODUCTION OF MOBILE ID WILL ENABLE PEOPLE TO ENJOY VARIOUS AUTHENTICATION SERVICES BASED ON THE STRONG SECURITY IN A MOST FAMILIAR AND CONVENIENT WAY

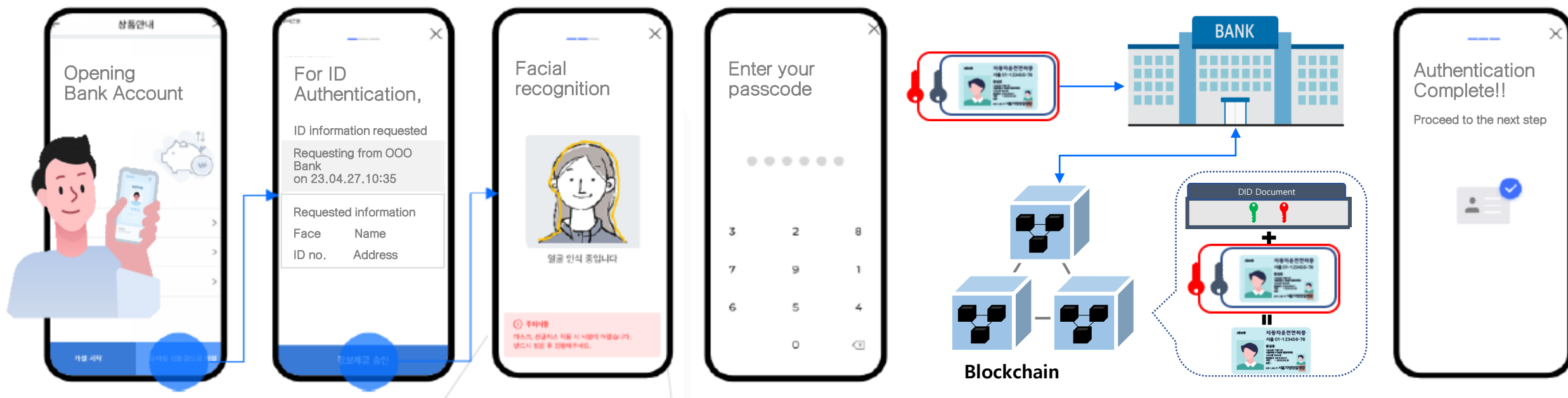
The screenshot shows the '간편인증' (Easy Login) page on gov.kr. It features a header with the URL 'gov.kr/simple/easy-login' and a search icon. Below the header, there are icons for various authentication services: 모바일 신분증 (Mobile ID), 페이코 (Payco), 카카오톡 (KakaoTalk), KB모바일인증서 (KB Mobile Certificate), 통신사 인증서 (SKT, KT, LG U+) (Carrier Certificate), and 삼성패스 (Samsung Pass). Each icon has a corresponding circle below it. A note says '다른 서비스는 없어요' (No other services). Below the icons, there are input fields for '이름' (Name) with the value '홍길동', '생년월일' (Date of Birth) with '19900101', and '휴대폰번호' (Phone Number) with '010'. At the bottom, there are checkboxes for '간편인증서비스 이용에 대한 동의' (Consent to use the easy login service) with options '전체동의' (All agree), '개인정보 이용동의 (필수)' (Personal information use consent (required)), '서비스 이용약관동의 (필수)' (Service terms of use consent (required)), and '제3자 정보제공동의 (필수)' (Third-party information provision consent (required)). There are also buttons for '닫기' (Close) and '인증 요청' (Request authentication). A link at the bottom says 'QR코드 촬영으로 로그인하기' (Login by scanning QR code).



User Case 4 : APP to APP # 1. Banking Service

THE FOURTH CHAPTER

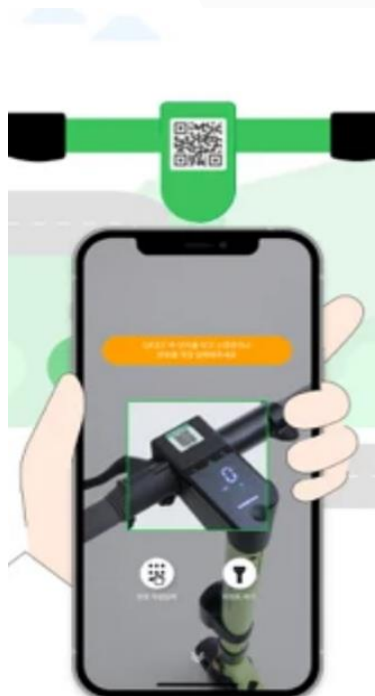
INTRODUCTION OF MOBILE ID WILL ENABLE PEOPLE
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User Case 5 : APP to APP # 2. Rental Service

THE FOURTH CHAPTER

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비대면 계좌개설

**면허확인을 위해
정보 제공을 요청했습니다.**

제공할 정보를 확인한 후 아래 버튼을 눌러주세요.

인증요청 : KST 인텔리전스
요청시간 : 2021. 07. 16. 14:15

이름	면허증별
사진	개인식별정보 (CI)
주민등록번호	

정보제공 승인



신현선님, 환영합니다!

모바일 운전면허증

신현선

Face ID

본인확인 요청

정부24에서
본인확인 요청이 있습니다.

요청기관 : 정부24
요청시간 : 2021.07.16. 14:15

간편 본인확인하기



신현선님, 환영합니다!

모바일 운전면허증

신현선

인증 완료

인증화면에서 인증 완료 버튼을 눌러
로그인을 완료하세요.

정부24에서
본인확인 요청이 있습니다.

요청기관 : 정부24
요청시간 : 2021.07.16. 14:15

간편 본인확인하기



지쿠터탑승중

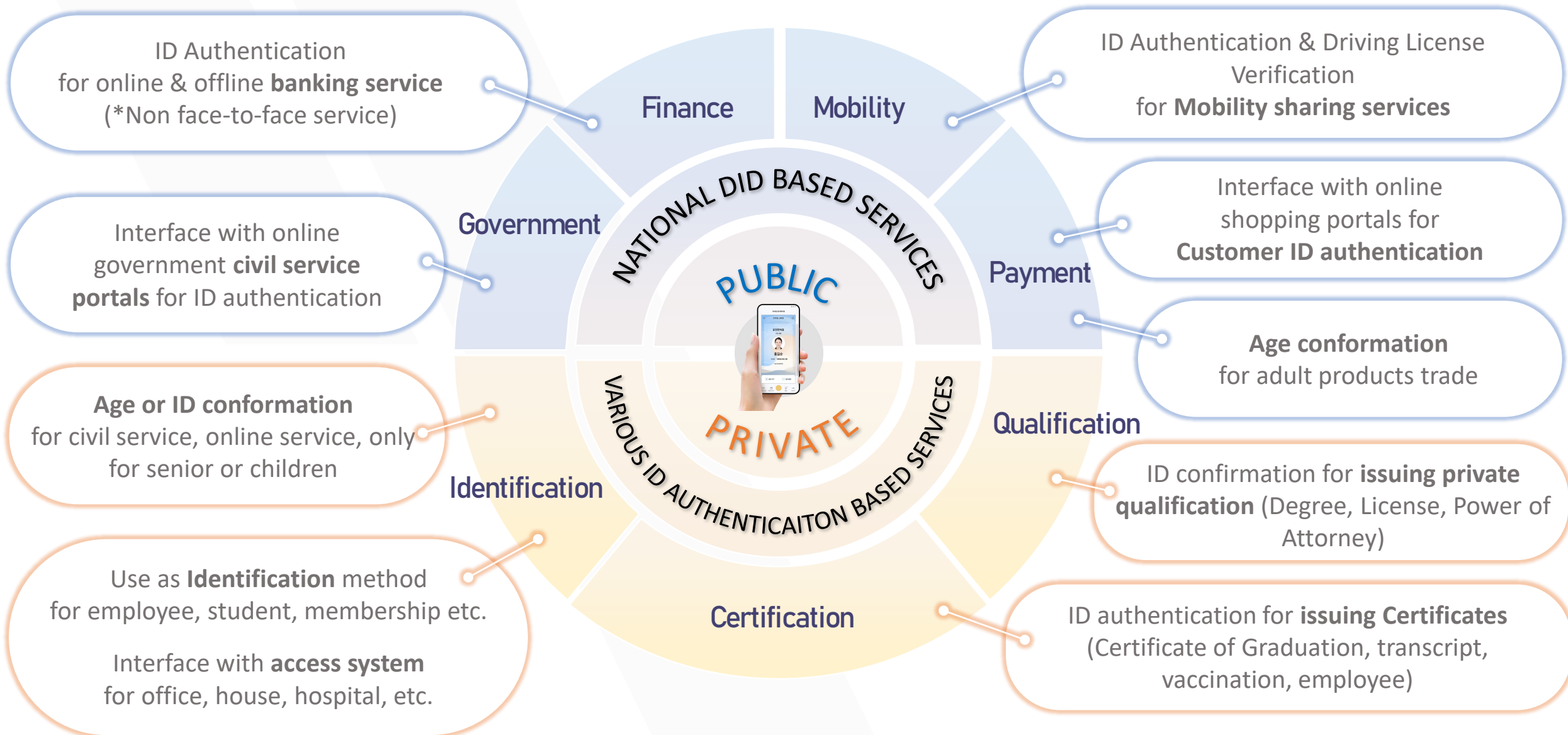
주행시간 1분 주행가능거리 7 km 배터리잔량 22%

500원 할인쿠폰 적용 중 변경

총정액 (SC제일은행)

운행 종료

DECENTRALIZED NID ECOSYSTEM



DIGITAL ID
KOMSCO
2023

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OTHER ICT SERICIES BY KOMSCO

THE FIFTH CHAPTER

KOMSCO MAKE THE VALUE OF LIFE TO PROVIDING A VARIETY OF ICT SERVICES
THAT WILL MAKE PEOPLE'S LIVES SAFER AND MORE CONVENIENT



KOMSCO ICT SERVICE VARIATIONS

THE FIFTH CHAPTER


KOMSCO MAKE THE VALUE OF LIFE TO PROVIDING A VARIETY OF ICT SERVICES THAT WILL MAKE PEOPLE'S LIVES SAFER AND MORE CONVENIENT




BIG STEP
TO THE FUTURE
ICT SEUCRITY
PROVIDER

ICT SOLUTIONS


1 DECENTRALISED
NATIONAL ID SOLUTION
WITH STRONG PROTECTION

**MOBILE DID
SOLUTION**


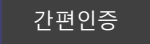
2 TRUSTWORTHY
MOBILE TRANSACTION
(PAYMENT) SOLUTION

**MOBILE PAY
SOLUTION**



3 SECURITY SOLUTION
FOR EVERYWHERE

**IoT SECURITY
SOLUTIONS**



4 TRUSTWORTHY PUBLIC ID
AUTHENTICATION
BY GOVERNMENT

**ONLINE ID
AUTHENTICATION**


5 ENHANCE NFT MARKET
INTEGRITY FOR ELIABLE
TRADING ENVIRONMENT

**NFT VERIFICATION
SERVICE**


6 VARIOUS MOBILE SERVICE
PLATFORM FOR PUBILC
SERVICE USERS

**MOBILE
PUBLIC SERVICES**


THANK YOU

KOMSCO IS SECURITY COMPAY CREATING VALUE AND TRUST FOR BETTER LIFE
WE CONNECTING PEOPLE'S TRUST WITH DEVELOPING STATE THE OF ART
SECURITY TECHNOLOGY THROUGH CEASELESS EFFORTS

