

Digital Identity for All



Agenda

This presentation will highlight how Thailand's National Digital Identity (NDID) model works and why the project can attract volunteers from government and private sectors. It is also important to discuss some of the key challenging problems, being faced with its implementation. Looking to the future it is clear the project has not reached its end, and there are more challenges to come.

NDID Background

Country Pain Points

NDID Model

Sample Use Cases

NDID Background

BACKGROUND BEFORE BECOMING NDID COMPANY



Digital Economy Committee



Doing Business Portal Committee

Business

Regulator

Government



<p>Track 1: Technical Team</p> <p>White Paper: Digital ID Platform Spec Requirement</p>	<p>Track 2: Legal Team</p> <p>Digital ID Act</p>	<p>Track 3: Pilot Team</p> <p>9 Banks use e-Open Account as use case for testing - Waiting for Grand Opening in July 2019</p>
--	---	--



National Digital ID co., Ltd.





Timeline

2017

2 Years

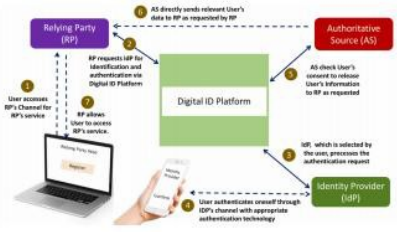
Now



OCT, 2017
Set up the National Digital ID Committee to drive the project.

Identify Assurance Level (IAL)	Face-to-Face		Not Face-to-Face	
	Face-to-Face	Not Face-to-Face	Face-to-Face	Not Face-to-Face
IAL 2.3	Use One-Time Password (OTP)	Use MPC to download data from Passport with Digital Signature from CAS	Use One-Time Password (OTP)	Use MPC to download data from Passport
IAL 2.2	Use One-Time Password (OTP)	Use MPC to download data from Passport with Digital Signature from CAS	Use One-Time Password (OTP)	Use MPC to download data from Passport
IAL 2.1	Use One-Time Password (OTP)	Use MPC to download data from Passport with Digital Signature from CAS	Use One-Time Password (OTP)	Use MPC to download data from Passport
IAL 1.3	Use Copy of Citizen ID	Use Copy of Citizen ID	Use Copy of Citizen ID	Use Copy of Citizen ID
IAL 1.2	Use Copy of Citizen ID	Use Copy of Citizen ID	Use Copy of Citizen ID	Use Copy of Citizen ID
IAL 1.1	Use Copy of Citizen ID	Use Copy of Citizen ID	Use Copy of Citizen ID	Use Copy of Citizen ID

Oct, 2018
ETDA announced National Standard Levels of Assurance Framework aligning with NIST Standard.



Dec, 2018
"Go Live!" The NDID Platform became available for pilot members to test the real-world use cases.



FEB, 2019
The Parliament passed the 4th Amendment to the Electronic Transaction Act to sanctify NDID platform creating trusted legal foundation for members in the NDID ecosystem.



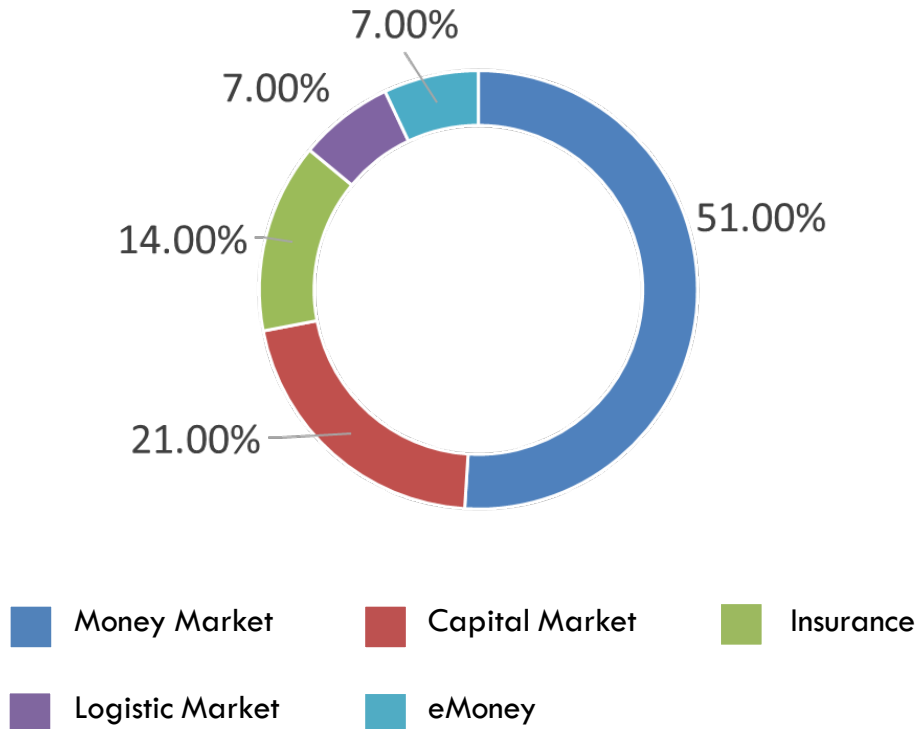
JUL, 2019
NDID and all supporting organizations including the regulators launched the grand opening of NDID at Bangkok FinTech Fair 2019 at the Bank of Thailand.



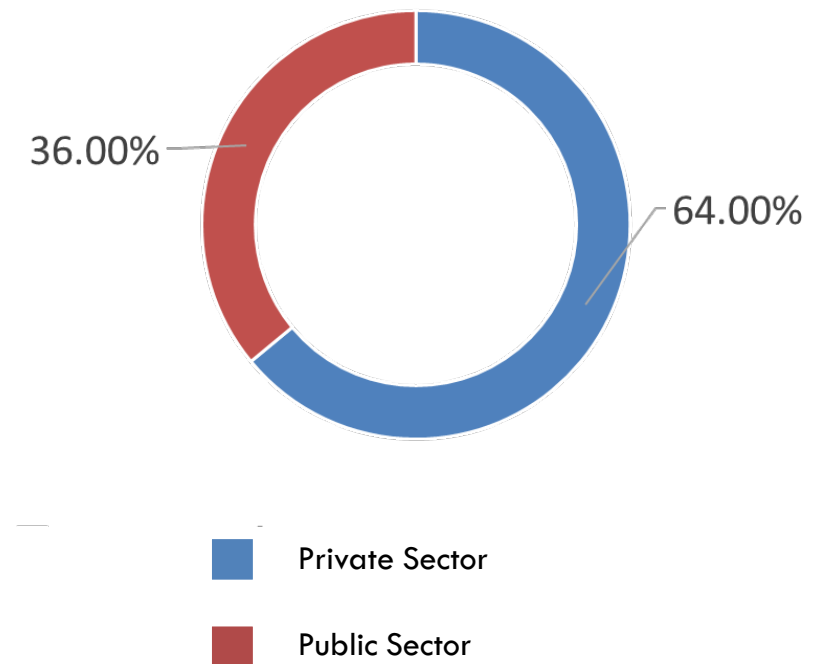
NOV, 2019
The 1st Pilot case, Opening a new bank account in fully online non-face-to-face channel, marking the first real use case to graduate from BOT regulatory sandbox.

More than 60 companies from 5 key industries become both shareholders and users at the same time

Shareholders by Industry



Shareholders by public/private



Country Pain Points

Dreaming

Any Transactions

Loan Insurance applying VISA requesting
Opening account E-Commerce Dating app
Fund account opening Hospital Transfer

Can be done no matter...



What you are doing



Where you are



Whenever

Reality

Almost every transaction

- Require copies of paper document(although we have **smart card citizen ID** for years)
- Need to go to the office (face 2 face)

Personal Information, Fingerprint, Facial

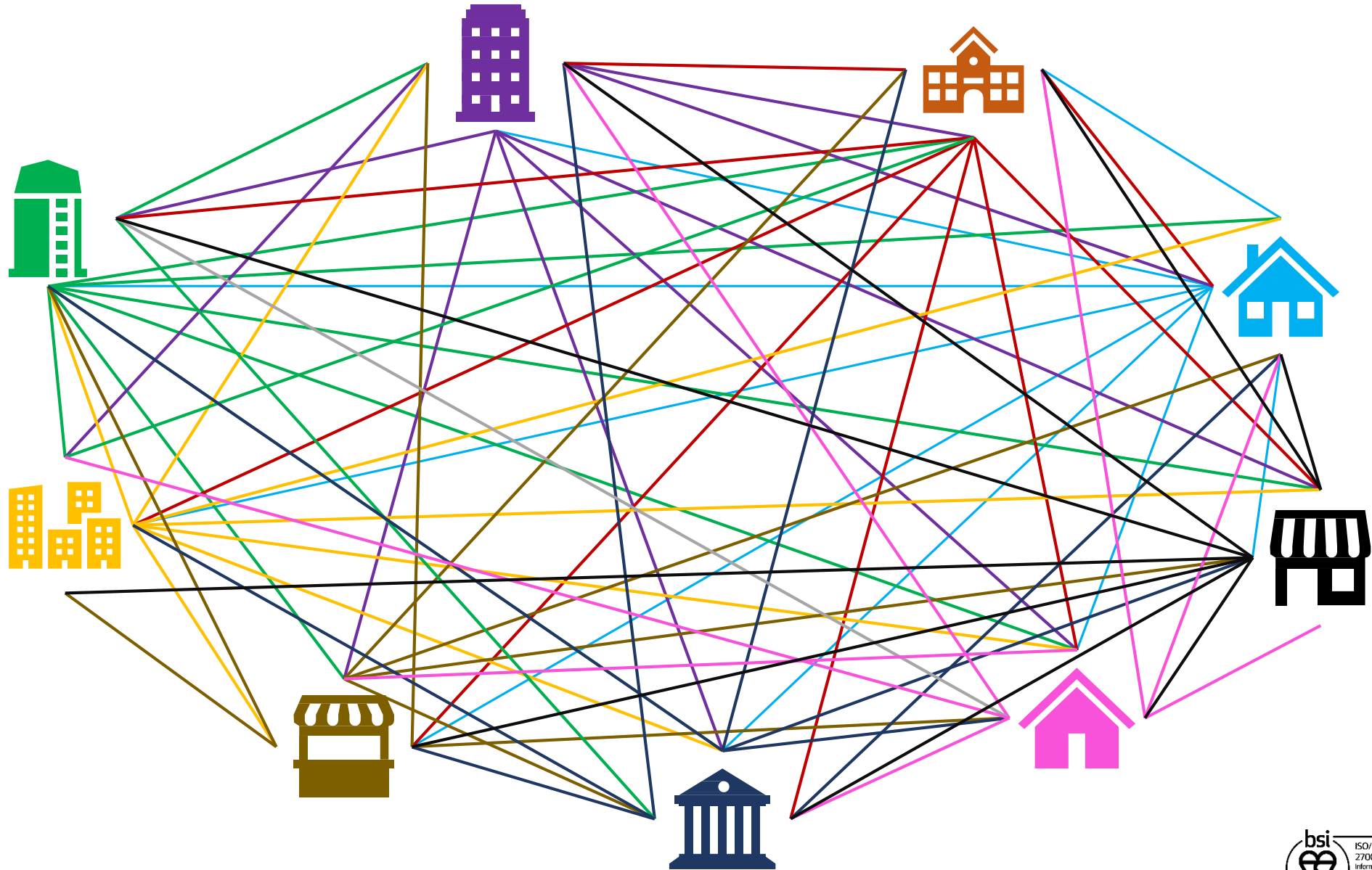


Risk & Inefficiency is everywhere

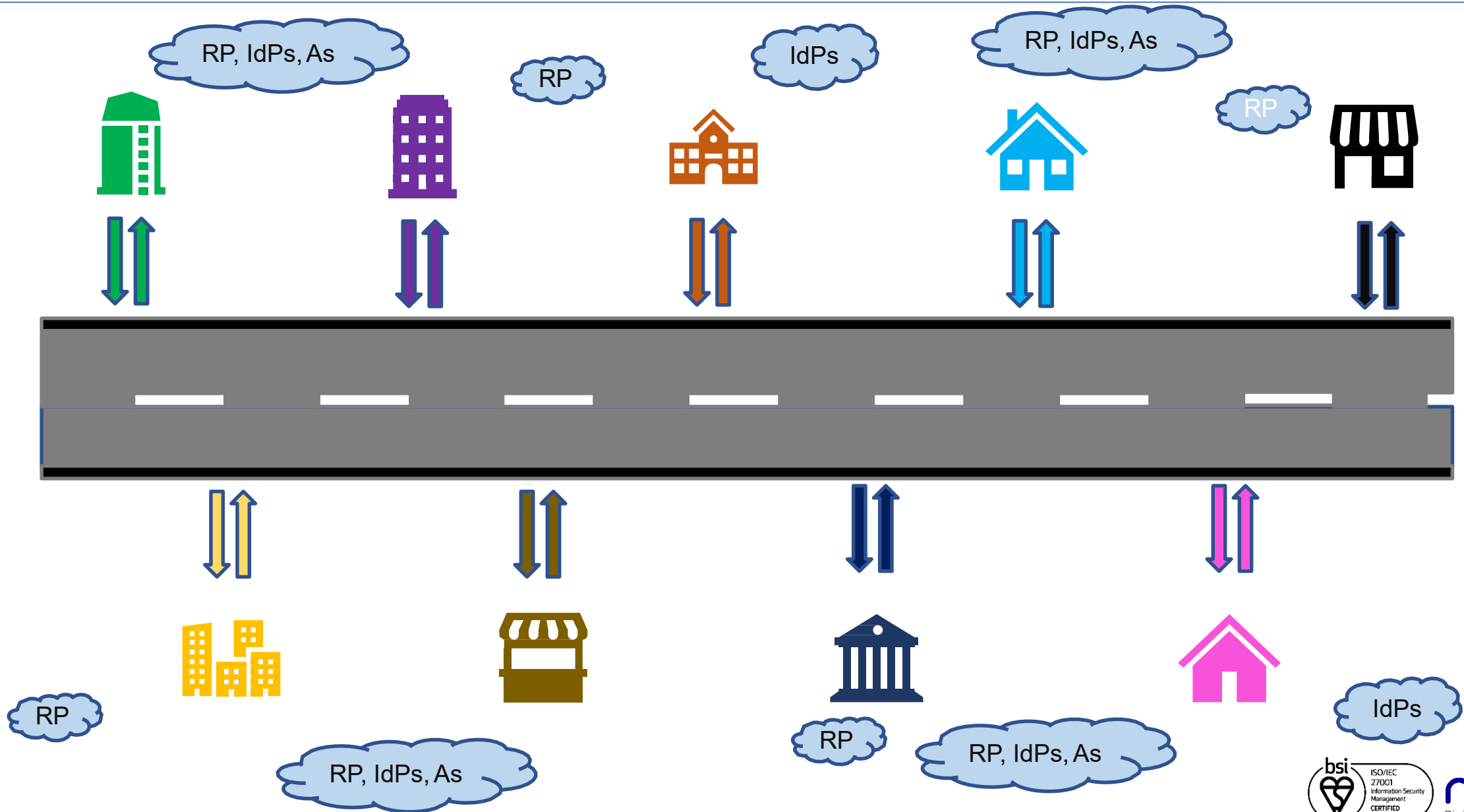
High Fraud
Lost of document
Low data privacy
High paper usage



Infrastructure Design Concept Complexity – IT, Agreements, Payment & Settlement

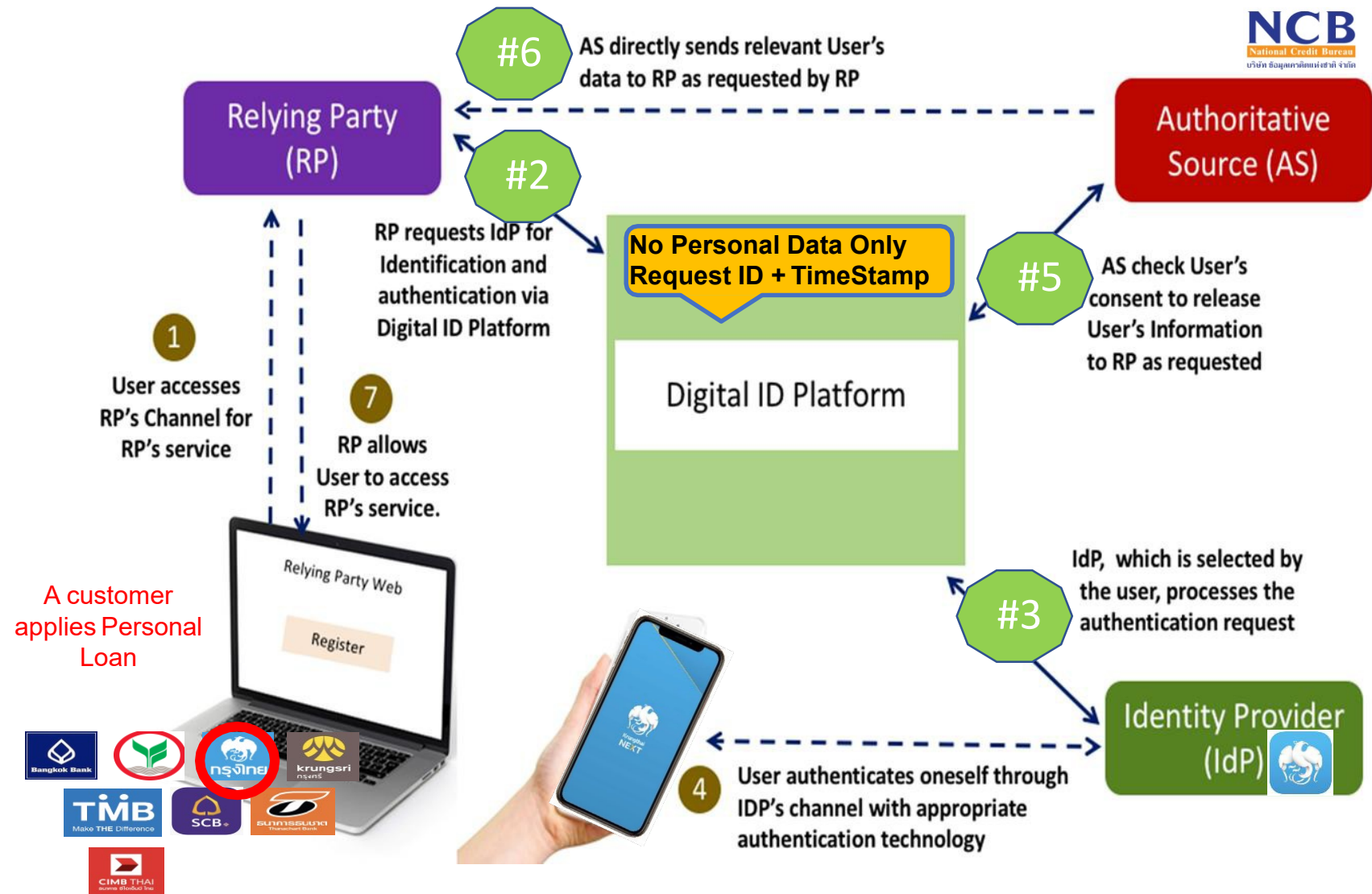


NDD Platform: Simple, Main Highway connecting members



NDID Model

Recap NDID Model and Crucial Points : How it works



NDID platform is not a storage system. Privacy of customers is secured. NDID do not see or store any customers' information.

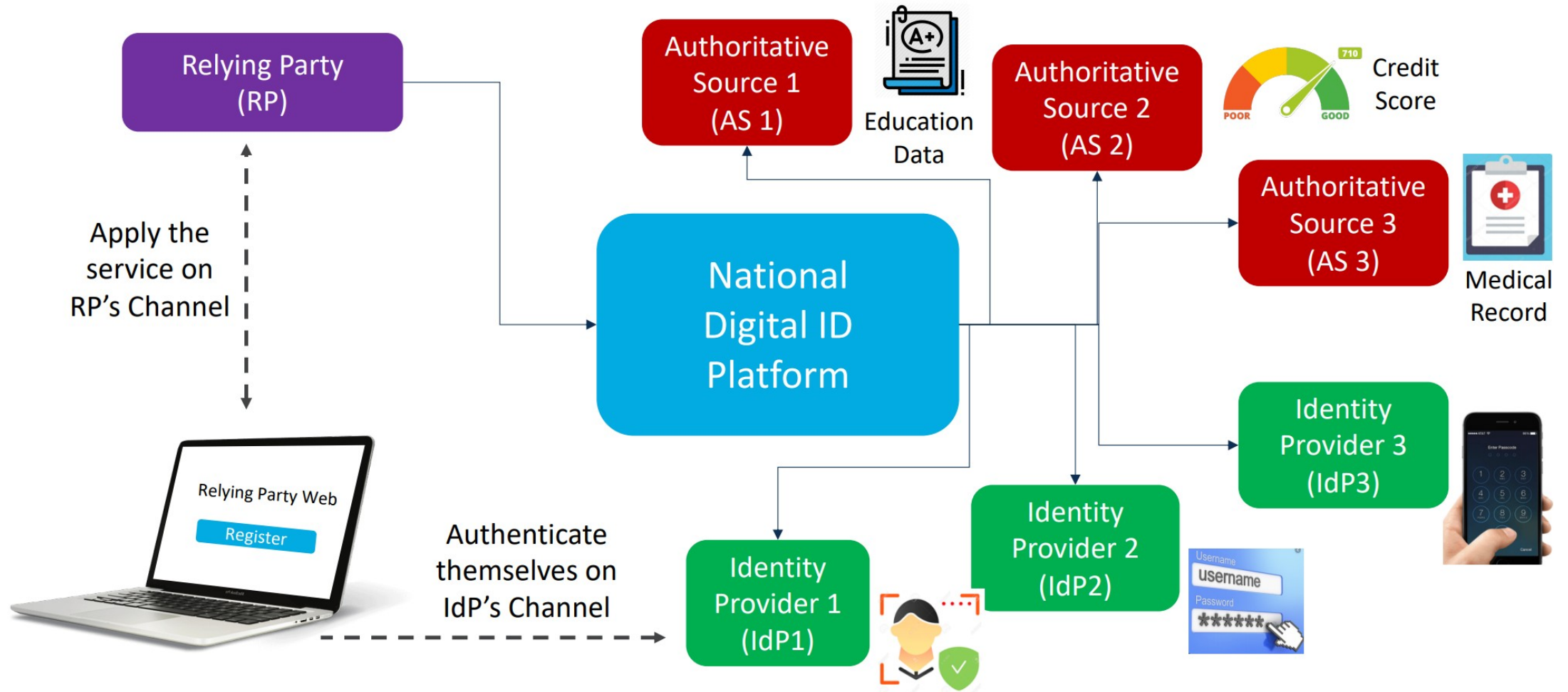
NDID platform is Distributed Ledger (Blockchain - BC).

NDID platform is a platform to connect members to send/receive requests of authentication and information. Data in Blockchain is Timestamp Log e.g time, date, receiver id, sender id, etc. No Sensitive data at all, as shown in the picture #2, #3, and #5.

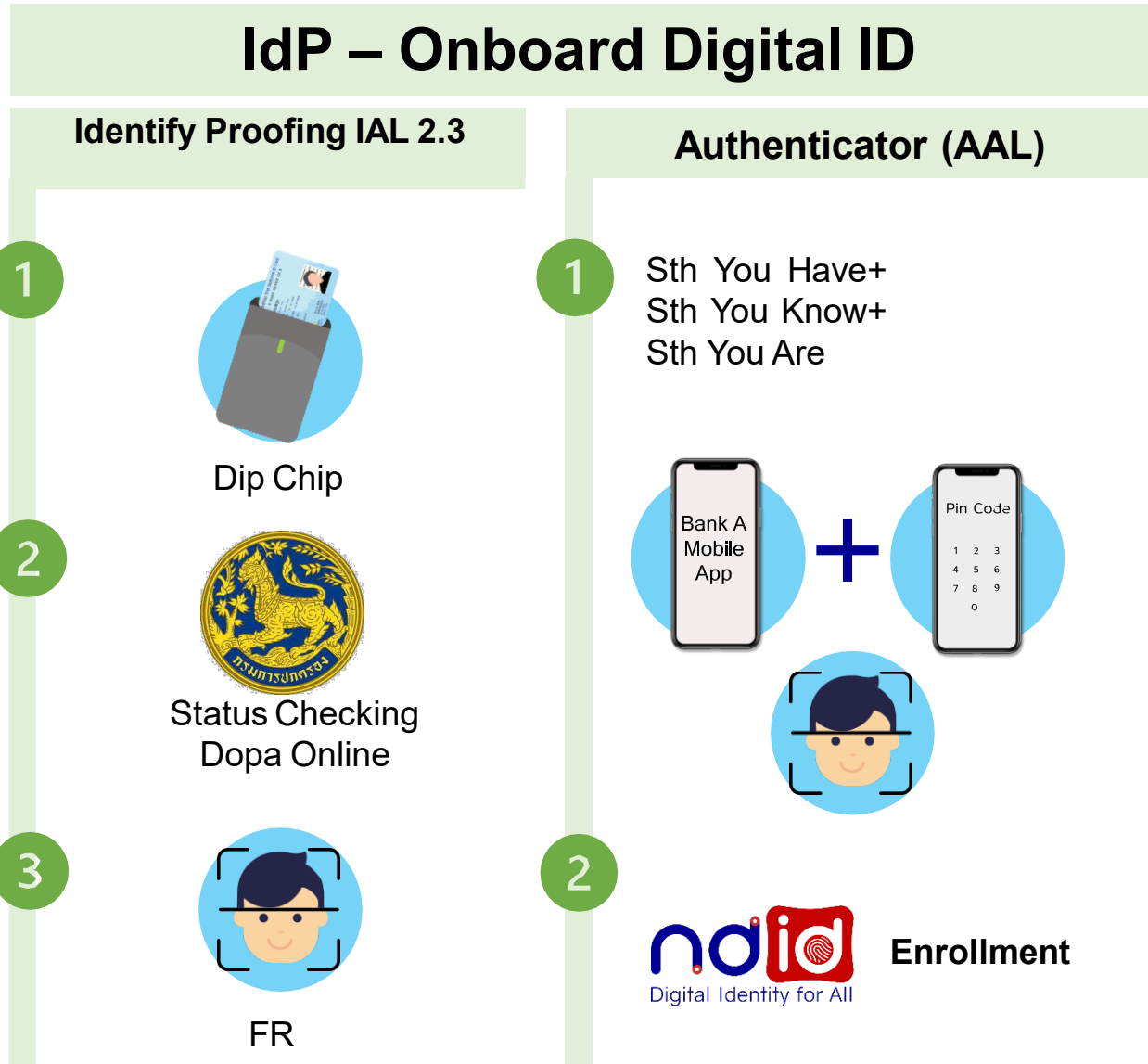
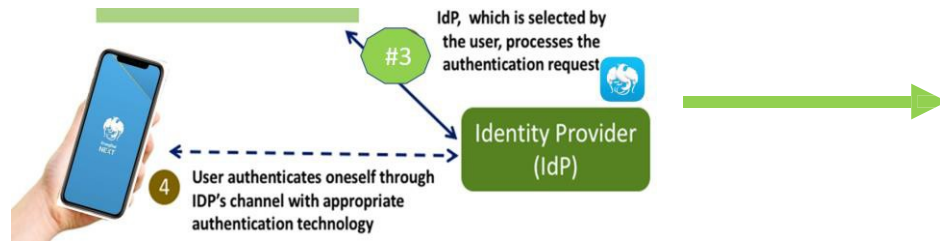
Sensitive information only sends between two parties concerns outside the platform in #6. Therefore, NDID is data privacy and security by design.

RP can rely on multiple IDP's for identity verification and multi sources of information providers (AS's)

RP can request and combine many IdPs and multiple AS's to strengthen the assurance of the identification verification.



Level of Assurance



Standard Reference



ข้อเสนอแนะมาตรฐานฯ เกี่ยวกับ
แนวทางการใช้ดิจิทัลไอดีสำหรับ
ประเทศไทย จำนวน 3 ฉบับ

<https://standard.eta.or.th/?p=10132>



Main Objectives of National Digital ID

- ✓ ETDA issues Identity Guidelines based on NIST framework
- ✓ Regulator : LOA Announcement for eOpening Account Use Case
 - BOT : IAL 2.3/AAL2.2
 - SEC : IAL 2.1+/ AAL2.1

1

UPGRADE

To building standard of identity proofing and identity authentication for better online secured transaction

As a result :

- ✓ Financial transactions required KYC can be done **100% Online**
- ✓ Such as Bank Account Opening, Securities Account Opening any time anywhere soon
- ✓ Transactions required eConsent, eSignature can be executed 100% Online e.g. NCB, Lending Agreement with Signature – Accelerating True Digital Economy

2



To provide e-KYC for digital services

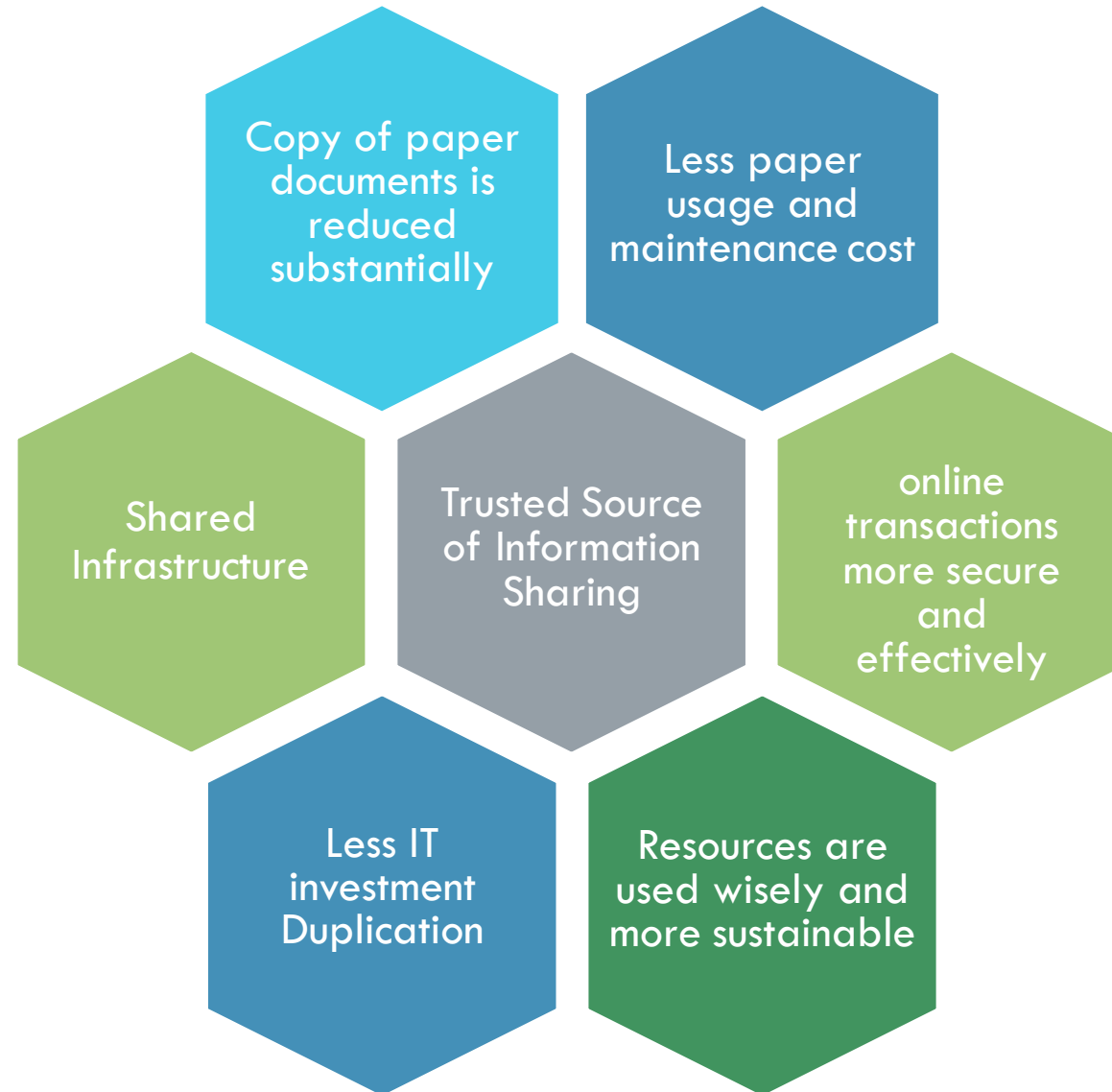
3



To build data sharing ecosystem by connecting among members (no data stored on a centralized system and to share information owners must give consent)

- ✓ The only platform to have 100 % eConsent matching with owner's approval
- ✓ Complying Personal Privacy Data Act (GDPR)

Benefit from NDID Platform



NDID Roadmap

Phase: 1 Individual

BOT Regulatory Sandbox

- **6 Feb 2020**
New Bank Account
Opening
- **Q3 2020**
 - Securities
 - Asset Management
 - Insurance
 - Personal Loan

Phase: 2 Juristic

Ongoing

- **May 2020**
Kick off Meeting – Juristic
Development Committee
appointed by Government
- **June 2020**
 - NDID Platform
connects to DBD
System (Government
Portal for Juristic)

Phase: 3 Foreigner

Future Plan

Regulations & Compliance



พระราชบัญญัติว่าด้วยธุรกรรมทางอิเล็กทรอนิกส์

Identity Proofing and Authentication – Electronic Transaction Laws (4th)

พ.ร.บ.ว่าด้วยธุรกรรมทางอิเล็กทรอนิกส์ พ.ศ. ๒๕๖๒



http://www.ratchakitcha.soc.go.th/DATA/PDF/2562/A/067/T_0203.PDF



กฎกระทรวง กำหนดธุรกรรมที่สถาบันการ

Anti Money Laundering Office - KYC

ต้องจัดให้ลูกค้าแสดงตน พ.ศ. 2562



http://www.ratchakitcha.soc.go.th/DATA/PDF/2562/A/086/T_0004.PDF



ประกาศหลักเกณฑ์การรู้จักลูกค้า (Know your

The Bank of Thailand - KYC

ฝากของสถาบันการเงิน ที่ สนส. 19/2562



<https://www.bot.or.th/Thai/FIPCS/Documents/FPG/2562/ThaiPDF/25620191.pdf>



ประกาศแนวปฏิบัติ ที่ นป.5/2562

Securities and Exchange Commissions - KYC



<https://capital.sec.or.th/webapp/nrs/data/8040s.pdf>



ข้อเสนอแนะมาตรฐานฯ เกี่ยวกับ

Electronic Transactions Development Agency – 3 Identity Guidelines



<https://standard.etda.or.th/?p=10132>



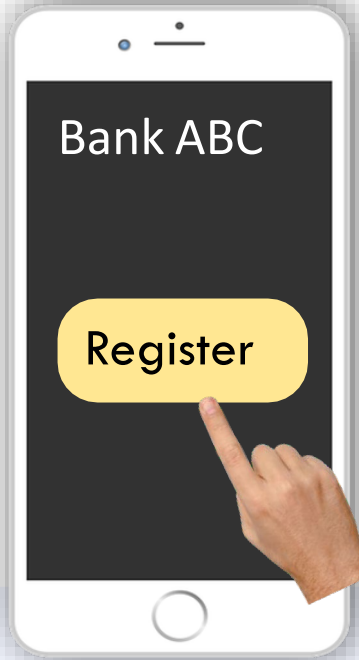
ร่างข้อเสนอแนะมาตรฐานด้านเทคโนโลยี
สารสนเทศและการสื่อสารที่จำเป็นต่อธุรกรรม

Electronic Transactions Development Agency – Digital Signature Guidelines



<https://standard.etda.or.th/?p=11299>

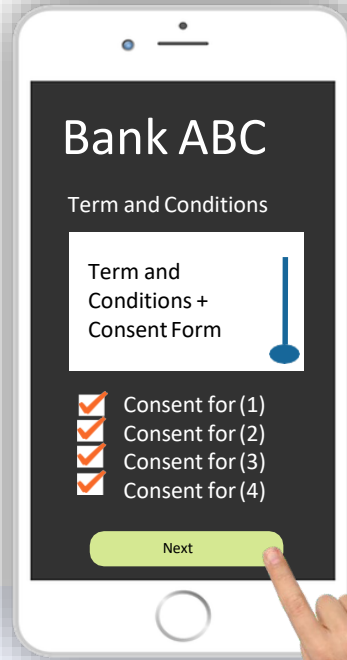
Sample Use Cases



Open account with Bank ABC

- Download eOpen Application
- Fill in – Private Data
- Click “Register”

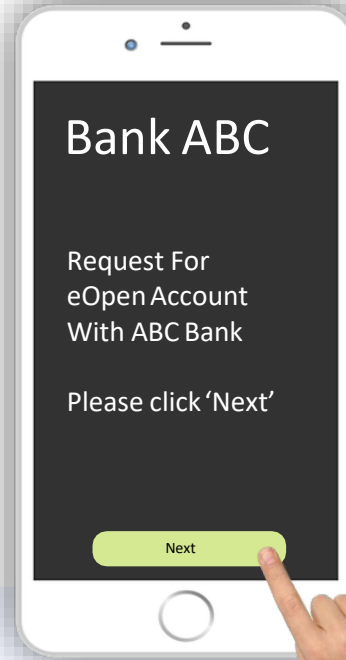
Step 1



Accept Terms and Conditions

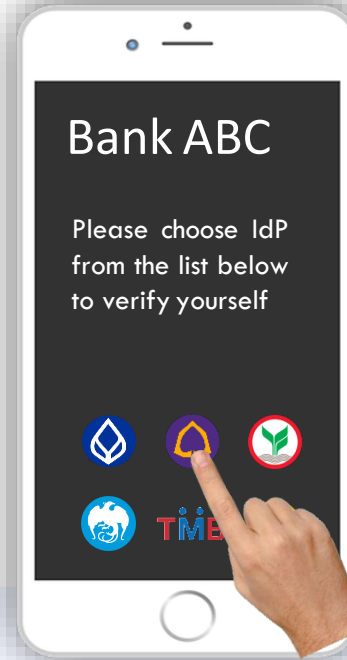
- ABC Products Terms
- NDID Terms
- Consent Conditions

Step 2



Click 'Next'

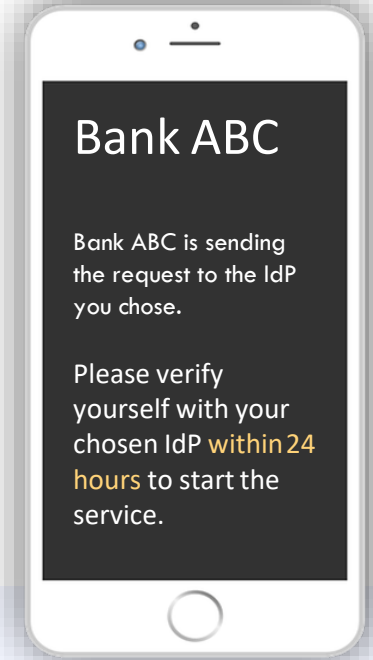
Step 3



Choose your Bank IdP

User selects its preferred IdP and then RP requests authentication as per agreed Level of Assurance (LoA) as per Industry standard

Step 4

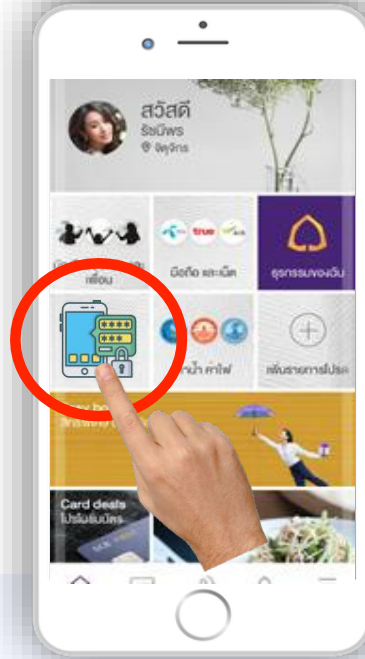


RP (Bank ABC) sends request to Bank IDP thru NDID Platform and write time stamp (log) on the blockchain.

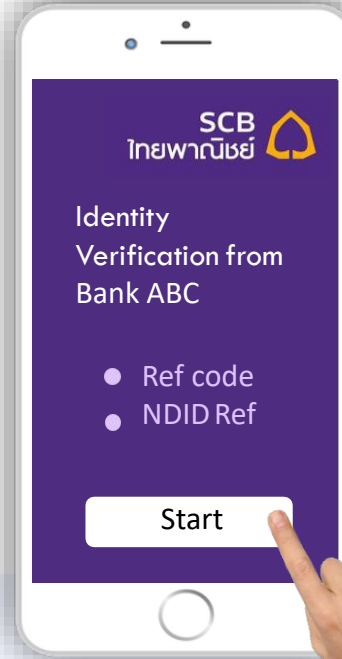
Step 5



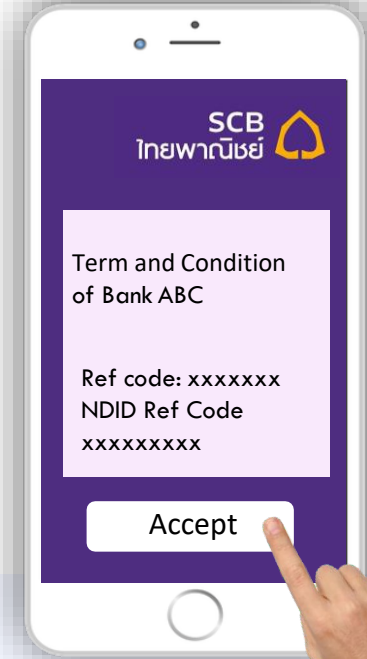
Identity verification icon



Click on 'Verification icon'



Click on 'Start'
Request Summary Information is displayed from Bank ABC



Check your terms and conditions that Bank ABC sends to SCB

Click on 'Accept'

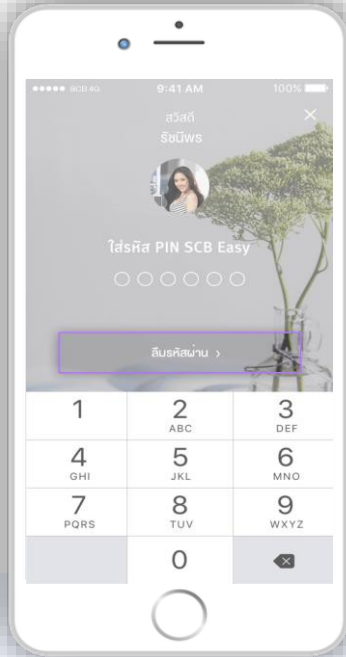
Self-Authentication

Step 6

Step 7

Step 8

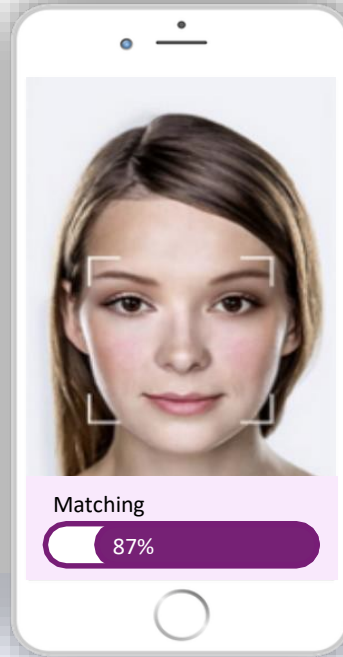
Step 9



SCB leads you to the step of Authentication

AAL 2.2 is required by Bank ABC

- Pin code (sth you know)
- Registered mobile (sth you have)
- Facial Recognition (sth you are)

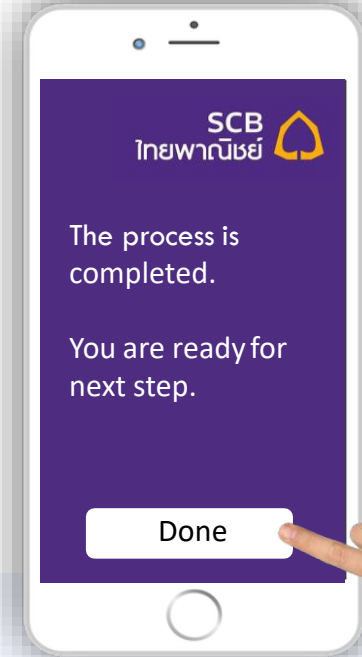


After Pin Code, Selfie of mobile owner is required to compare (Facial Recognition) with original data.

Waiting for Facial Recognition...

Done!!!

Self-Authentication



SCB confirms back to Bank ABC that authentication is completed. SCB also writes timestamp on blockchain

Step 10

Step 11

Step 12

Depends on the design Bank ABC is willing to show

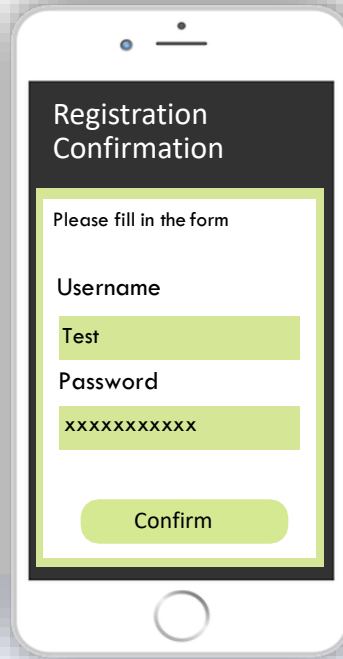


Bank ABC receives user's information

User's information is automatically filled in Register form

SCB sends data to Bank ABC outside platform

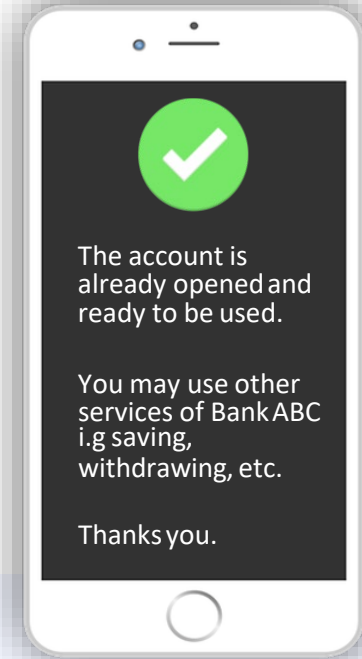
Step 13



ABC Bank creates user and password for next use in its application

Click on 'Confirm'

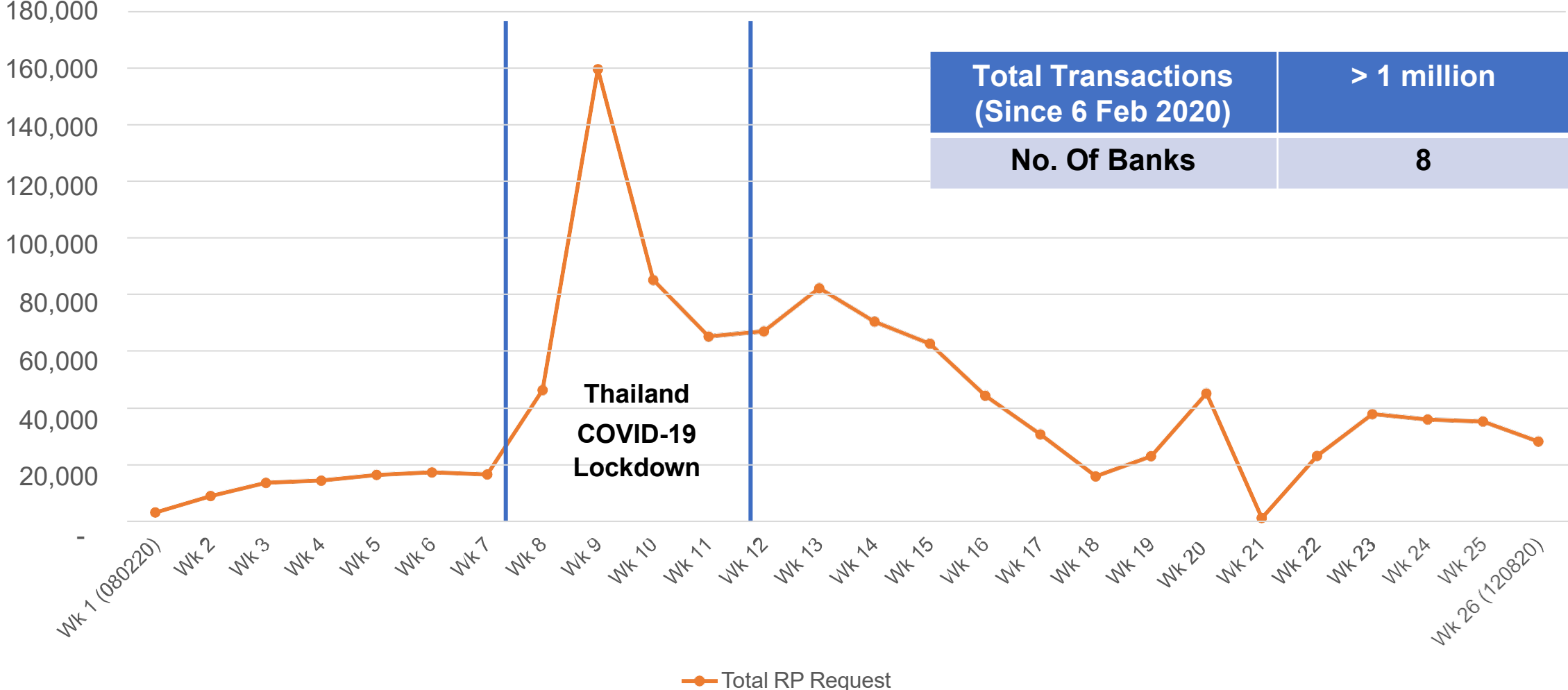
Step 14



The process is completed.

Step 15

% Total RP Request Completed (per week)

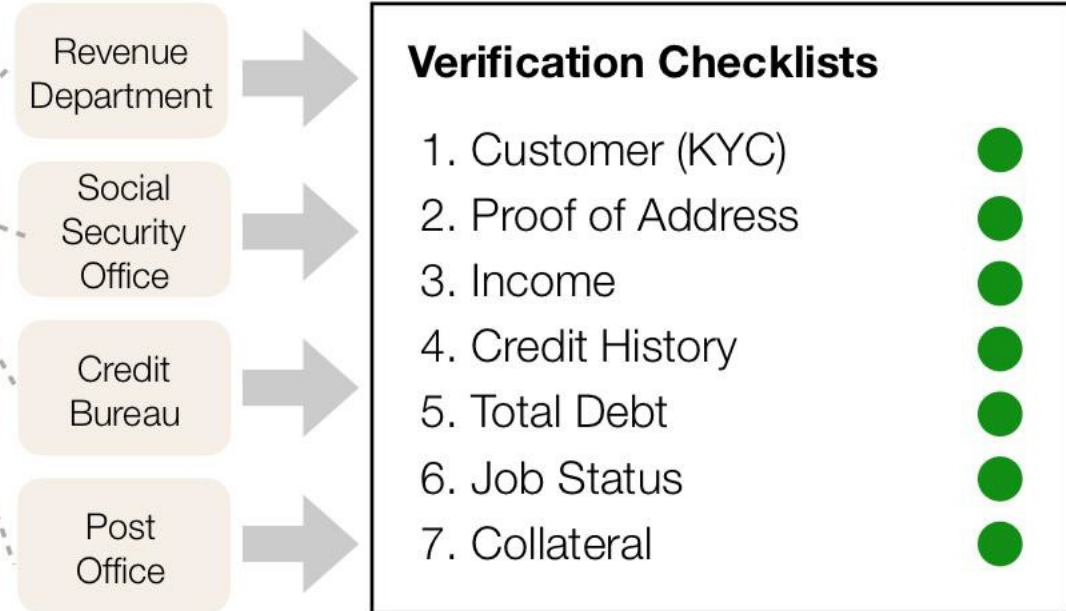


Customer need loan

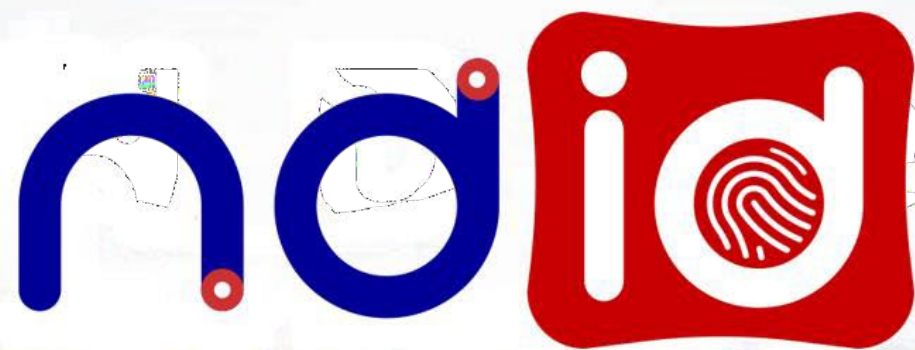


New KYC process with machine comparison

Bank need to verify datas



For whole process, It may take time 2-3 minutes to approve if having complete data from trusted source.



Digital Identity for All

Khob Khun Krub
Thank You