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Omise Proposal for Blockchain-based KYC/AML Solution

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Jun Hasegawa, Masaharu Uno, Eva Beylin

Challenges with Current Financial Platforms

There are many challenges that impact consumer and financial institutions



Consumer

- 73% of the population in Southeast Asia is unbanked, limiting access to financial services
- Payment settlement and asset transfer can take days; varies by payment method
- International remittance is costly
- Fractional reserving limits accessibility to assets in real-time; may require days for consumers to access desired funds
- Repetitive KYC processes are required for each bank and financial service



Financial Institutions

- Lack of appetite to innovate on infrastructure due to heavy reliance on legacy systems
- Cost control requirement for IT investment and operating expenses reduction
- Difficult to prevent fraud or double-spending¹, due to outdated systems (10+ yrs) especially if information is not up-to-date
- Disincentivized to participate in lending due to global regulatory requirements (e.g., AML)
- Low profitability due to low interest rates

¹. Double-spending is the problem where a digital transaction (debit or credit) can occur twice, as a result of duplication of information (e.g., account balance)

Select Financial Services Trends

Global trends are shifting the requirements for financial services platforms to succeed



Online/Mobile Access

Increasing online/mobile device usage is leading to a rise in digital payments, 70% rise in mobile payments in 2016¹



Faster Payments

Consumers are desiring more convenient and faster payment settlement and asset transfer



Cross-Border Transactions

Growing globalization is enabling greater international business, e-commerce and remittances



Data Privacy & Security Concerns

Consumer willingness to share data is rising, with demand for greater security and privacy standards

1. ThreatMetrix Q4 2016 Report

Benefits of Blockchain Technology

Blockchain technology can provide many benefits to financial services globally, in a secure and efficient way

- Can be integrated with existing API's and online/mobile user interfaces
- Once scaled, can have global reach and massive transaction volume at unprecedented speed
- Decentralization and consensus mechanism ensure that the network cannot be manipulated (e.g., at least 66% of validators must agree)
- Distributed ledgers and time-stamps solve the double-spending problem¹ and provide transparency of transactions and balances
- Digital signatures and smart contracts minimize potential for extortion and enable compliance
- Cryptography provides advanced security

1. Double-spending is the problem where a digital transaction (debit or credit) can occur twice, as a result of duplication of information (e.g., account balance)

Evolution of KYC/AML Processes

Currently, there are many challenges with KYC/AML, that can be addressed by a blockchain-based identity solution

Today

- KYC/AML procedures and policies are complicated and inconsistent globally
- Users and institutions repeat redundant processes (e.g., authentication)
- Poor coordination and delayed updates between institutions can lead to inaccurate information
- Difficult to prevent fraud or the double-spending problem¹ due to lack of visibility into transaction origination
- Centralized databases and dated security systems leave identity data vulnerable



Tomorrow

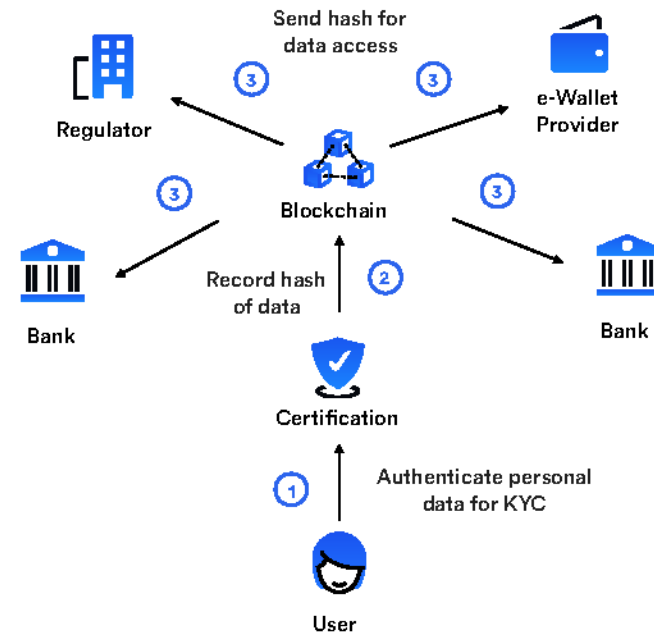
- Smart contract architecture ensures compliance to standards
- Decentralized application for identity data collection and sharing reduces repetitive KYC/AML (e.g., one-time verification)
- Real-time updates and multi-party access allow for data to be continuously accurate (e.g., change of address, new credit card)
- Distributed ledgers linked to identity data enable monitoring of assets and activity
- Ethereum-rooted consensus omits risk of single point of failure (e.g., data breach)

1. Double-spending is the problem where a digital transaction (debit or credit) can occur twice, as a result of duplication of information (e.g., account balance)

Digital Identity Solution Flow

Customer identity data can be authenticated, continuously updated and accessed by all approved financial institutions

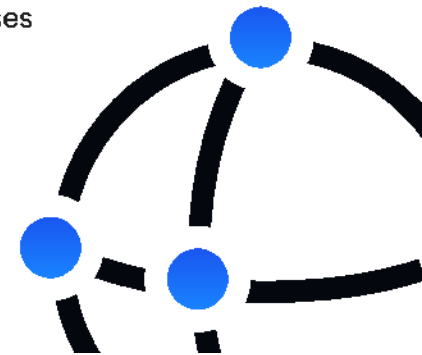
- User data is authenticated by a regional or national certification body (e.g., ASEAN organization), compliant with regional procedures and policies
- Digital signatures confirm the correctness of information and approve access to data
- A hash of the data is recorded onto the public and immutable blockchain
- Approved parties (e.g., regulators, banks) receive the hash, that provides access to authenticated data and regular updates
- Through a user interface and API atop of the blockchain, parties can interact with the data (e.g., KYC/AML)



Regional Integration of Digital Identity Solution

A blockchain-based, identity solution for KYC/AML can be integrated with the other regional platforms

- Fintechs and 3rd party data collectors can collaborate to create an ecosystem of identity data sharing for KYC/AML
- ASEAN financial institutions and regulators can connect to the digital identity application via regional platform portal and API
- Potential to integrate identity data with settlement data and even non-financial information; to develop unique consumer insights and analytics to tailor products
- Opportunity for blockchain-based solution to improve efficiency of internal processes (e.g., core banking, data storage)



Opportunities for Regulators

Regulators can also play a role in developing a streamlined identity solution by supporting blockchain innovation

- Standardize KYC/AML requirements and processes within regions (e.g., across ASEAN countries and financial institutions)
- Advocate for open data and open banking policies to better facilitate data sharing between financial institutions, 3rd party providers and users
- Promote regulation that supports blockchain development to help foster greater innovation

APEC Roadmap

Moving forward, APEC must develop a roadmap to build a blockchain-based identity solution for KYC/AML

Define Scope & Partnership

- Identify use cases for a blockchain-based identity application (e.g., KYC/AML, online payments, core banking)
- Define criteria and standards for an ASEAN solution
- Conduct a request-for-proposal from blockchain providers
- Select partner(s) to develop digital identity solution to support KYC/AML



Conduct Pilot

- Onboard all new participants (e.g., users, ASEAN banks)
- Connect identity platform with payment settlement systems
- Begin integration of other multifaceted identity data outside the scope of KYC/AML (e.g., biometrics)
- Incorporate solution with ancillary services (e.g., analytics, artificial intelligence)



Launch Solution

- Conduct proof-of-concept of chosen identity module, with regional partners (e.g., 3 banks) and a certification body, to test functionality and scalability
- Align on solution features to meet participant needs
- Tailor API and user interface to ensure compatibility with various financial services infrastructure

Overview of Omise

Omise is a fintech that has the capabilities to develop an innovative, blockchain-based identity solution

Company Background

- Founded in 2013, venture-backed payments company
- HQ in Thailand, with locations in Japan, Singapore and Indonesia
- Helping over 6,000 merchants move towards digital money and card processing
- Products: online payments gateway (Omise), OMG Network and decentralized exchange (OmiseGO)
- Awarded 'Digital Startup of the Year' at Digital Thailand Big Bang event (2017)



omise Online Payments Gateway

Mission: "Online payment available for all"

A wide range of processing solutions for any business need, with fast, flexible and seamless payment experiences



omiseGO Ethereum Financial Network

Mission: "Unbank the Banked"

Interoperable and decentralized financial network enabling value and data exchange, built on the Ethereum blockchain