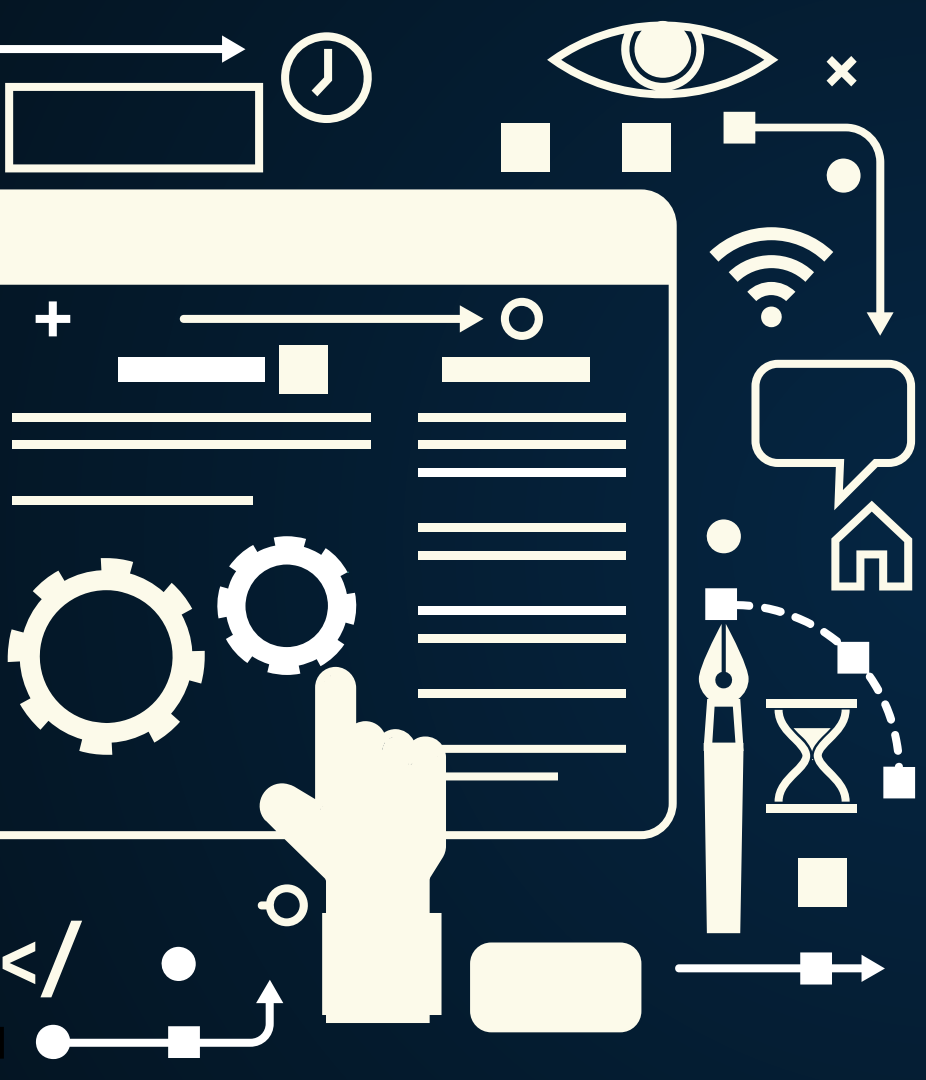

SecureBank Pro

A next-generation banking web app, which emphasizes user privacy, security, and data control.

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Encryptcon 2024

Problem Statement 1

Digital Identity Solutions for Secure and Sustainable Banking

TABLE OF CONTENTS

WHAT WE ARE WORKING ON

DECENTRALIZED IDENTITY

Identity information is distributed across a network of nodes, enhancing security, increase interoperability and reducing the risk of a single point of failure.

ZERO KNOWLEDGE PROOF

Enable users to prove specific details about themselves without revealing unnecessary information.

SECURITY

Each user's identity and transaction history are securely recorded on the blockchain, ensuring immutability and resilience against tampering.

ABOUT THE PROJECT

We've established a digital wallet allowing users to securely hold their certificates issued by different entities. Our objective is to enhance this system by incorporating Blockchain or Distributed Ledger Technology. This integration aims to achieve decentralized identity management and transparent transactions, ensuring the immutability and resistance to tampering of stored information.

TRADITIONAL

- Users have limited control
- Data is owned and managed by centralized entities
- Lack of standardization
- Lack of standardization

IN OUR MODEL

- Users have complete control and ownership of their identity
- Promotes interoperability and cross platform services
- Concept of blockchain provides control of scope of user's data
- Security is enhanced through decentralized technologies

BUSINESS MODEL CANVAS

Key Partners

- Financial Institutions
- Payment Gateways
- Educational Institutions
- Employers

Key Activities

- SSDI Wallet Creation
- Generate DIDs
- Blockchain Integration
- Smart Contracts
- Zero-knowledge proof

Key Resources

- Certificate Issuers
- WebDev Team
- Financial Institutions

Value Propositions

-Manage digital identities, credentials, and banking details.
- Ensuring immutability and resilience against tampering of data.
- Prove specific details about themselves without revealing unnecessary information.
- full control over their identity information

Customer Relationships

- Passwordless Authentication
- Frequent security updates
- New feature updates
- Regular notifications about the current status

Channels

- Social media for security awareness
- Financial Institution for promotions

Customer Segments

- Beneficiaries and Recipients
- Government Agencies
- Applicants and Claimants

Cost Structure

- App development and maintenance costs
- Employee salaries and benefits
- Marketing and promotion expenses
- Server and infrastructure costs

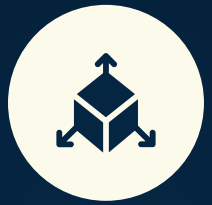
Revenue Streams

- Secure Data Storage Services
- Multiple Certificates handling
- Premium Subscription

OUR GOALS

USER IDENTITY

Users can selectively share identity attributes with the bank and other entities, enhancing privacy.



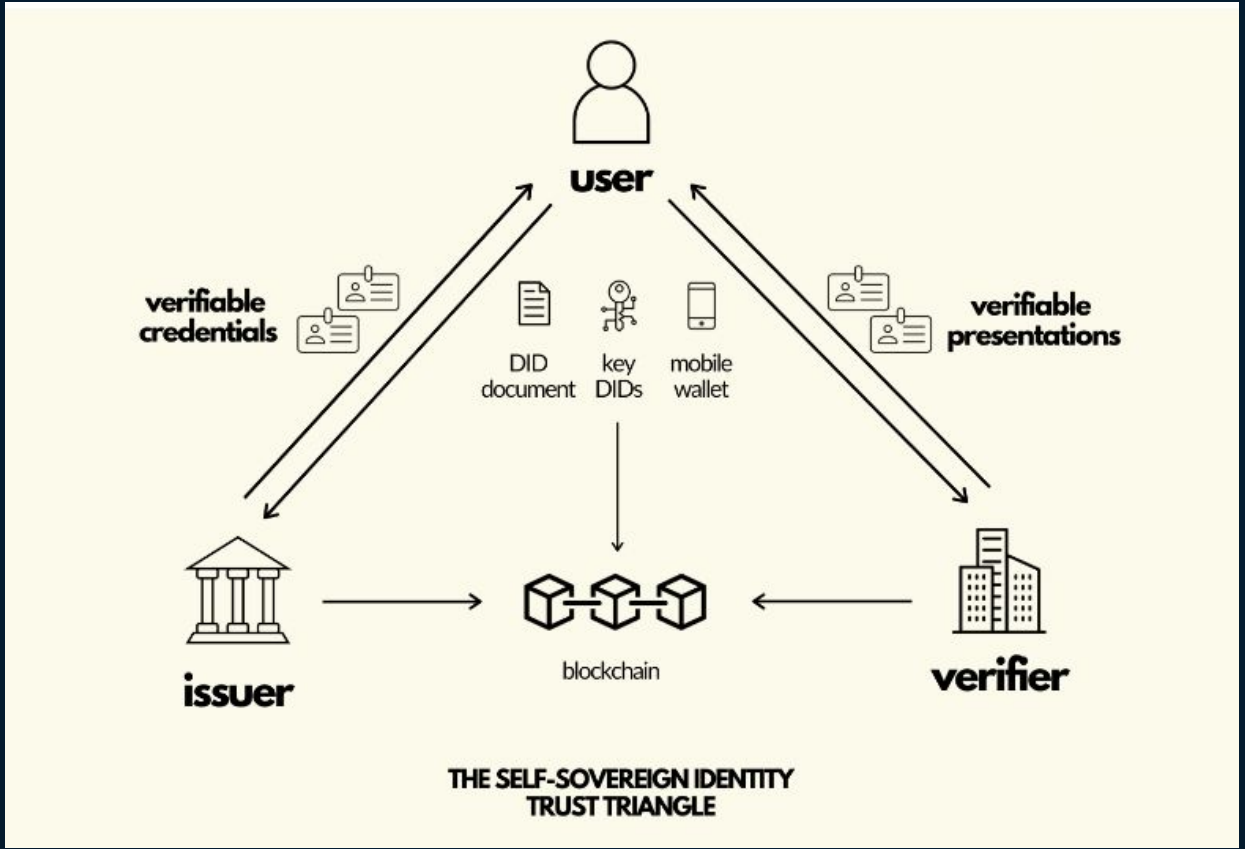
USER CONTROL

Decentralized Identifiers (DIDs) in banking enable secure, user-controlled identities, leveraging blockchain for transparent and tamper-resistant identity verification.

PRIVACY

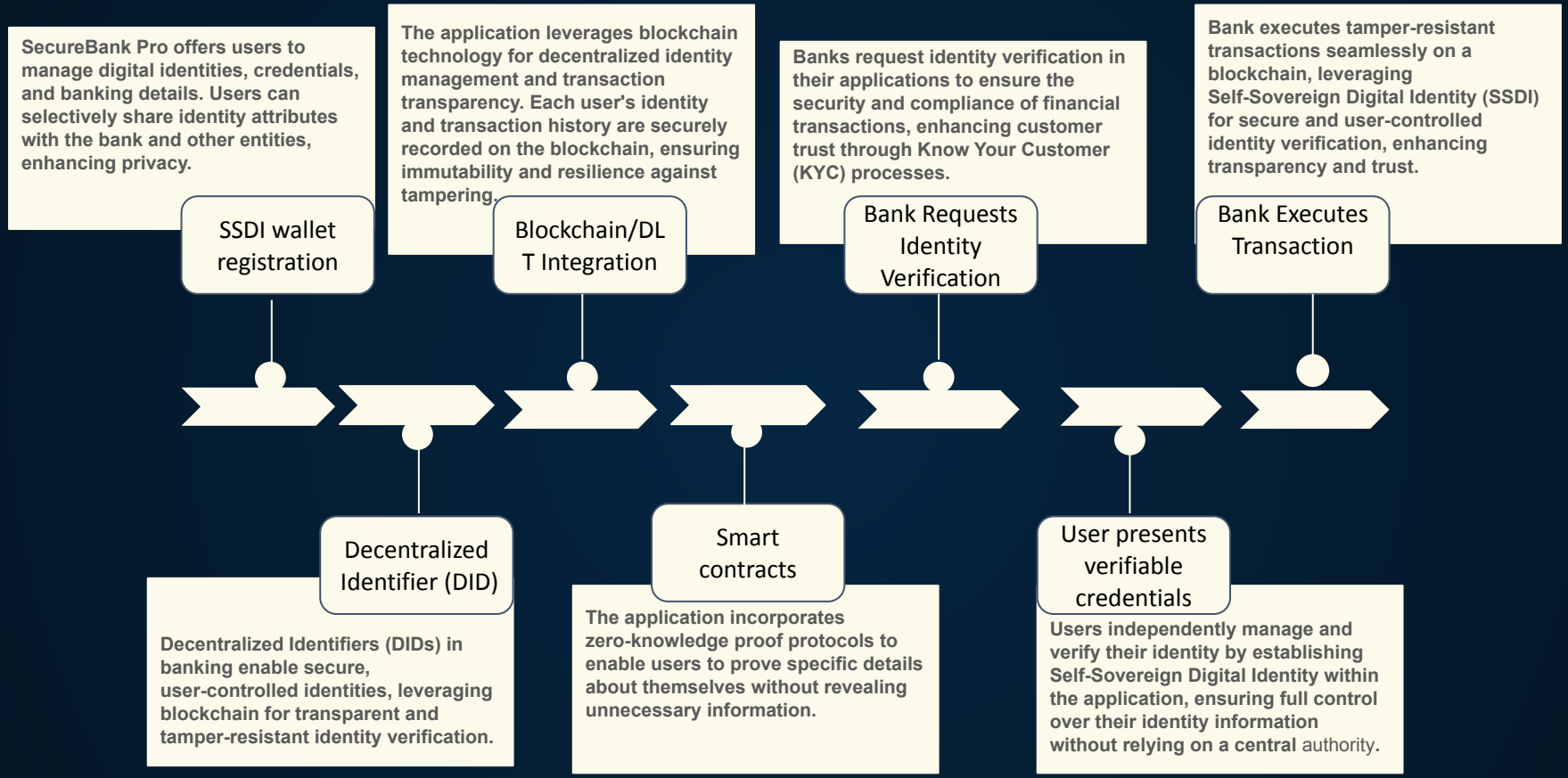
Each user's identity and transaction history are securely recorded on the blockchain, ensuring immutability and resilience against tampering.

BASIC

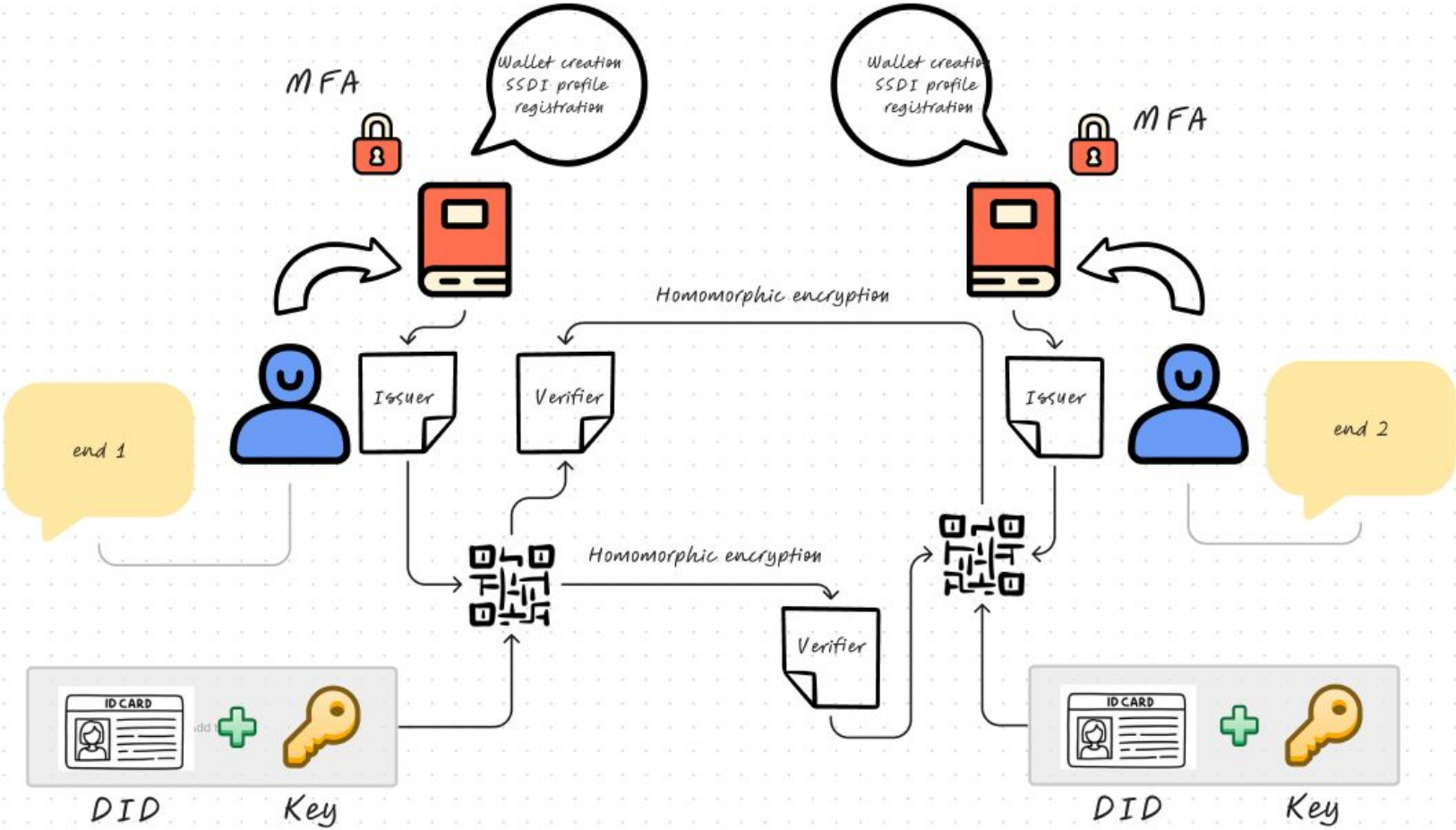

user
verifiable credentials
DID document
key DIDs
mobile wallet
verifiable presentations
issuer
blockchain
verifier
THE SELF-SOVEREIGN IDENTITY TRUST TRIANGLE

HOW THE FLOW WORKS?

LOW FIDELITY FLOW


SecureBank Pro offers users to manage digital identities, credentials, and banking details. Users can selectively share identity attributes with the bank and other entities, enhancing privacy.
SSDI wallet registration
The application leverages blockchain technology for decentralized identity management and transaction transparency. Each user's identity and transaction history are securely recorded on the blockchain, ensuring immutability and resilience against tampering.
Blockchain/DLT Integration
Banks request identity verification in their applications to ensure the security and compliance of financial transactions, enhancing customer trust through Know Your Customer (KYC) processes.
Bank Requests Identity Verification
Bank executes tamper-resistant transactions seamlessly on a blockchain, leveraging Self-Sovereign Digital Identity (SSDI) for secure and user-controlled identity verification, enhancing transparency and trust.
Bank Executes Transaction
Decentralized Identifier (DID)
Decentralized Identifiers (DIDs) in banking enable secure, user-controlled identities, leveraging blockchain for transparent and tamper-resistant identity verification.
Smart contracts
The application incorporates zero-knowledge proof protocols to enable users to prove specific details about themselves without revealing unnecessary information.
User presents verifiable credentials
Users independently manage and verify their identity by establishing Self-Sovereign Digital Identity within the application, ensuring full control over their identity information without relying on a central authority.

HIGH FIDELITY FLOW


MFA
Wallet creation
SSDI profile
registration
Wallet creation
SSDI profile
registration
MFA
Homomorphic encryption
Issuer
Verifier
Issuer
end 1
end 2
Homomorphic encryption
Verifier
ID CARD
ID CARD
DID
Key
DID
Key

ADVANTAGES

COMPANIES	USERS
Efficiency	Usability
Saves cost	Control over data
Assurance	Privacy

IAM Standards incorporated

FIDO
FIDO standards, notably FIDO2, enhance secure banking by enabling passwordless authentication through the W3C-backed Web Authentication (WebAuth) standard. This integration ensures strong multi-factor authentication, contributing to a secure and user-controlled digital identity solution for banking.

Decentralized Identity Foundation (DIF) Standards
Standards from DIF, such as DID standards and Verifiable Credential standards, can be adopted to build a comprehensive self-sovereign identity solution.

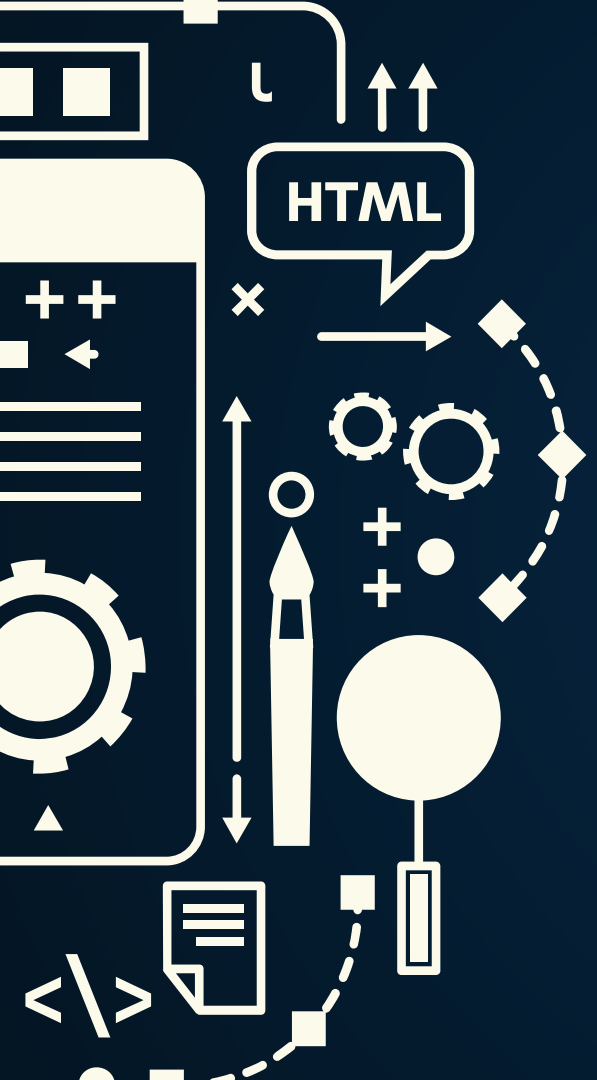
THE TEAM

BARATH K

VISHAL RAM V A

S R ASHUWANTHH

YAMUNA SHREE P



THANK YOU