



Soulbound Token as a Complement to Blockchain Address Identity

Tenggara Blockchain Services

Problem Statement

Blockchain Address Identification

1. Blockchain is a permissionless and nearly anonymous system. There are no restrictions to participate in it.
2. This characteristic becomes a barrier for certain entities to fully leverage blockchain technology, particularly in conventional financial systems and real-world asset-related applications.
3. The permissionless feature doesn't constrain the transfer of digital tokens, allowing it to be conducted from any digital wallet address to anywhere.
4. Hence, there is a need for a method to link a digital wallet address to a real-world identity, providing stronger legal certainty in business transactions.

Proposed Solutions

The Soulbound Token, with its non-transferable nature, serves as a solution for identifying a blockchain address, where issuance is only granted to addresses that have undergone real-world verification. The Soulbound Token can serve as a requirement to access a platform (token gating), and in the financial/banking sector, it can function as a 'account number' or Customer Identification Number for blockchain addresses. It could also be likened to a KYC-AML verification certificate

Alongside this is the NFT that can represent Real World Assets, which specifically can only be received and sent by addresses that possess the Soulbound Token.

Target Market

The target of this Soulbound Token is industries that require comprehensive user data, whether for regulatory purposes or consumer databases.

For example, in the financial sector, the Soulbound Token can be utilized by tightly regulated banking sectors.

According to Defillama data, the current funds stored in DeFi platforms amount to 47 billion US Dollars. Despite numerous scam incidents by platform owners and hacking attempts, this figure is projected by Zion Market Research to reach 232 billion US Dollars by 2030.

This growth could multiply exponentially if renowned and regulated financial institutions can provide DeFi platforms, as these institutions are deemed more trustworthy.

Business Model

In relation to the aforementioned target market example, for the purpose of this presentation, we will focus on the Decentralized Finance sector as one of the business units of Bank Rakyat Indonesia.

The potential revenue sources from this business model include:

1. Transaction fees earned from each deposit and lending activity.
2. Interest rate spread when this business unit allocates funds/liquidity for lending.
3. Advertising from other business units.

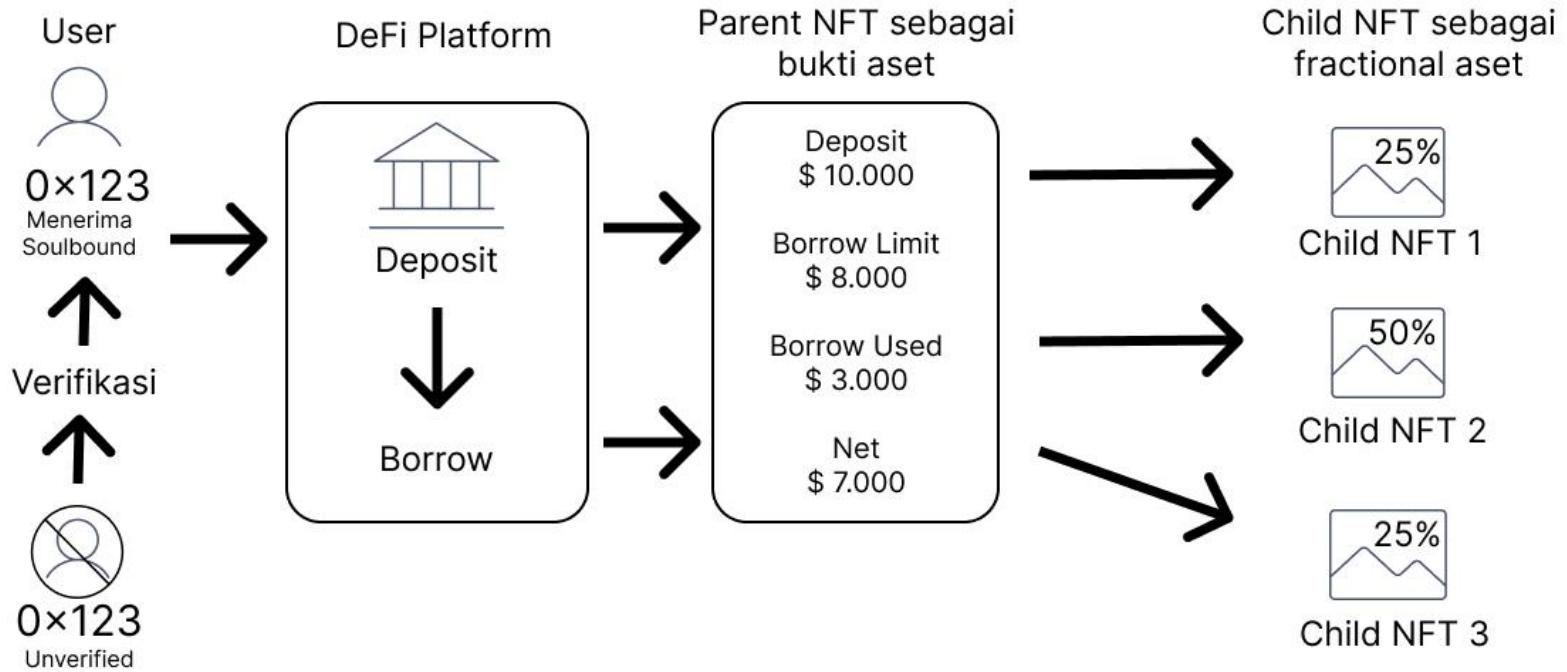
Implementation Plan

The technical planning and implementation of this project are as follows:

- Specification planning for Soulbound Smart Contract and NFT..
- Development of Soulbound Smart Contract and NFT.
- UI/UX Development.
- User Verification System Development.
- *Testing dan Deployment.*

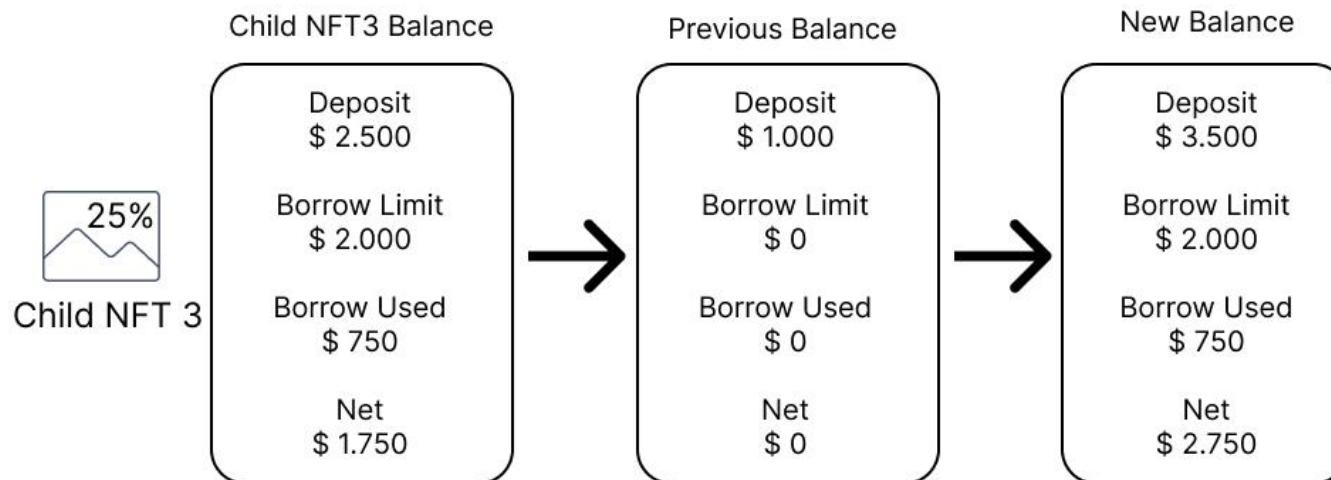
Contoh Use Case: Unit Bisnis BRI DeFi

Diagram Use Case



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Diagram Use Case



Use Case Explanation

Technical Specifications for Soulbound Token:

- Can only be issued by the issuer/verifier.
- Can only be burned by the issuer/verifier.
- Non-transferable by anyone, including the issuer/verifier.
- 1 National ID/Name/Customer can undergo verification for more than 1 address.
- 1 address can only be linked to 1 National ID.

NFT Specifications:

- Can only be issued/minted by an address possessing a soulbound token.
- Can only be transferred if both the sender and recipient addresses have soulbound tokens from the same issuer.

Prototype

PRODUK DEMO URL

The image displays a wireframe prototype of a digital platform, likely a mobile application or web interface, centered around a user's digital identity and assets.

Top Navigation: The top right corner shows a navigation bar with "Verifikasi", "Akun Anda", and a blue button labeled "0x123...c4ad".

Left Panel: Labeled "Verifikasi", it contains fields for "NIK", "NPWP", "Nama", "Tempat/Tgl Lahir", and "Alamat", each with an associated input field. Below these fields is a "SUBMIT VERIFICATION" button.

Middle Panel: A central card titled "Verifikasi" displays a placeholder profile picture for "Username101" and includes sections for "Verification" and "Aset".

Right Panel: A card titled "Aset NFT Anda" shows a placeholder profile picture for "Username101" and includes sections for "Verification" and "Aset".

Background: A large, semi-transparent circular graphic in the background represents a network or blockchain, with numerous small nodes connected by lines forming a mesh pattern.