

Volkachain Tokenizer Framework

Whitepaper

1. Vision & Mission

The Volkachain Tokenizer Framework (VKCT) enables NFTs to hold real, liquid value beyond speculative art or gameplay. It allows clients (framework users) to give their end users the ability to tokenize digital items that can outlive their own systems.

2. Problem Statement

Currently, NFT collections are mostly programmatically created using frameworks made for generating random images from seeds and are often driven by speculation rather than utility. Most NFTs used in GameFi are also used primarily for speculation or in-game usage without possibility to enhance their potential value.

VKCT addresses this by allowing NFTs to carry intrinsic, verifiable value in the form of fungible token vaults. Comparable projects include Vault Labs (NFTs as media vaults), Anon NFTs (vault-backed rewards), and Viravault (community-driven NFT vaults). Unlike these, VKCT integrates directly with digital assets (like trading cards) and provides users with piggy bank vaults tied to each NFT, turning them into lasting, token-backed assets.

3. Core Features

- Core: Smart contract enabling SPL token withdrawals from NFTs by their owners.
- Manager: Remote worker API that mints NFTs, creates piggy bank ATAs, pre-fills them, and transfers to owners. It acts as minting and collection authority.
- Withdrawal Interface: dApp running on an off-chain controlled network linked by an on-chain token (e.g., irys.xyz).
- Security: Framework servers are locked down from intrusion with shell access restricted, IP whitelist enforced, and no RPC endpoints exposed. APIs are one-way (framework to client) to reduce attack vectors. The smart contract is stored offline. It has a “kill switch” to stop vaults draining in case of user private key leakages.

4. Technical Details

VKCT is built on Solana, leveraging Metaplex standards, SPL tokens, and PDAs. Security and ownership are enforced by collection validation, PDA derivations, and authority checks. Caps: up to 32 collections and 256 tokens per smart contract. To reduce minting costs, it is recommended to attach no more than 3 piggy bank ATAs per NFT. If more tokens are added, this design can be followed by rotating token slots.

5. Ecosystem

The first client is [PoliCromix](#), a trading card game that allows users to acquire cards (free or paid) and 'NFTize' them. VKCT will be open to other projects but gated by LAVA SoftWorks approval, with an upfront cost to be determined (possibly donation-based). Third-party token developers may request to be added through <https://volkachain.tech/contact/>.

6. Economics

Network fees are not paid by LAVA SoftWorks. Part of the onboarding process includes SOL provisioning for network fees. Clients decide who bears these costs, e.g., PoliCromix charges fees to end users based on the latest tokenization cost report by the framework.

Deposits and withdrawals on an NFT piggy bank only affect the potential value of that NFT. Note: marketplaces may not display SPL token balances within NFTs unless they adopt this NFT format. Clients like PoliCromix provide custom explorers/catalogs (<https://policromix.com/nfts>) for users to verify holdings.

VKCT is token-agnostic by design, with no native governance or utility token planned.

7. Roadmap

- Short-term: Launch PoliCromix with VKCT integration.
- Mid-term: Open VKCT to additional partners, support more tokens.
- Long-term: Expand to cross-chain vault NFTs, explore DAO-based governance for token additions, and provide SDKs for third-party game integrations.

8. Team & Authority

LAVA SoftWorks (LSW) acts as the authority and compiler for VKCT.

Overview: IT consulting firm supported by people with 20 years of experience in building, extending and managing online communities and more than 25 years of experience in the information technologies industry. Specialists in web development and systems integration on Web2 and Web3 ecosystems.

Website: <https://www.lavasoftworks.com>

Headquarters: Altamira, Tamaulipas, Mexico

Founded: 2009

9. Legal & Compliance

VKCT and its components are positioned strictly as utility frameworks, not securities. NFTs and token vaults are digital utilities and collectibles with no guaranteed financial return.

- Licensing:
Core: Open Source (MIT License) – https://github.com/LAVASoftWorks/vkct_core
- Withdrawal Facility: Open Source (MIT License) – https://github.com/LAVASoftWorks/vkct_withdrawal_facility
- Manager: Proprietary code by LAVA SoftWorks.

Disclaimer: The VKCT framework does not guarantee profitability, future value, or marketplace recognition of NFT token balances. All deposits, withdrawals, and usage of the system are at the sole risk of the user. This document does not constitute investment advice.