Best Crypto Platform

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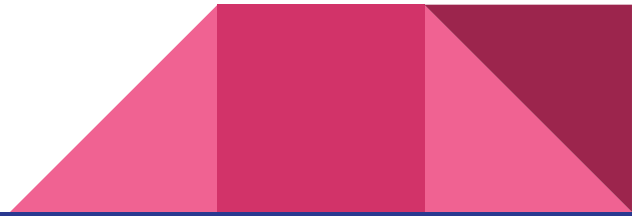


Introduction

As part of our task to design a new cryptocurrency for a sovereign client, our team conducted research on various established crypto platforms.

Our key considerations included the ability to:
- Support **Anti-Money Laundering (AML)**
- Implement **Know Your Customer (KYC)** procedures
- Enable strong **fraud detection** mechanisms

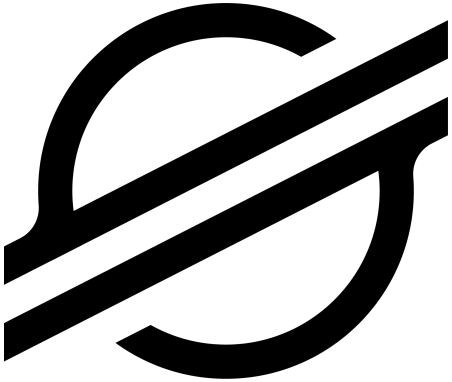
We evaluated Ethereum, Stellar, and Ripple.

Our goal is to recommend the most secure, efficient, and compliant platform to serve as a reliable substitute for fiat currency.

Ethereum

- Second most popular cryptocurrency platform
- Created to extend attributes of blockchain to different applications
  - NFT's (non-fungible tokens)
  - Databases
  - Games
- Smart contract functionality
  - Program or protocol that automatically carries out transaction according to a contract or terms of agreement
  - Decentralized finance
- Vulnerability: public blockchain

Stellar Blockchain



- Launched in 2016 by Jed McCaleb
- Forked from Ripple
- Decentralized, public, global, small
  - Supports 180 countries
  - Goal was 60% of cross-border payments in Oceania region
- $0.29 USD= 1 Stellar Lumens (XLM)
- Faster, cheaper, and more energy efficient compared to Bitcoin
  - Consensus protocol
  - Federated Byzantine Agreement algorithm
- Lumen Token issue with Stellars Development Foundation

Ripple Platform

Overview:

- Ripple was founded in 2012 and focuses on making cross-border payments faster and more affordable.
- It uses the **XRP Ledger**, which is a blockchain
- Ripple is mainly used by banks and large organizations to move money across countries in just a few seconds.

Strengths:

- Ripple has a **very fast transaction time**, usually between **3 to 5 seconds**, compared to traditional banking systems that take days.
- It offers **very low transaction fees**
- Ripple has **built-in support for Anti-Money Laundering (AML)** and **Know Your Customer (KYC)** compliance, which are important for preventing illegal activities.
- It provides **enterprise-grade security**

Challenges:

- One concern with Ripple is that it is **more centralized** compared to other blockchain platforms, meaning Ripple Labs still controls parts of the network.
- Ripple has also faced **regulatory scrutiny**, including a lawsuit from the U.S. SEC about whether XRP should be considered a security. However, the case is now close to being resolved.

Use Cases:

- Ripple is already being used for **Central Bank Digital Currencies (CBDCs)**, where governments want to create their own digital versions of money.
- It is also commonly used to send money between countries and to help large companies make fast and safe payments across borders.

AML- Anti Money Laundering

- Prevents people from converting unlawfully-obtained cryptocurrency into cash
- Crypto transactions allow for greater anonymity, cross border transactions, and less oversight by law enforcement
  - Can be exploited for illicit activities
- Includes KYC (Know Your Customer) and CDD (Customer Due Diligence)
- The Crypto Travel Rule
  - All crypto platforms must regularly monitor and report suspicious activity to authorities
  - For every transaction, screen and verify customers information
  - Can accept or reject transaction using this information

KYC - Know Your Customer

- Legal requirement to verify users' identities.
- Used to ensure someone doesn't use crypto to launder money, do illegal things, or dodge paying taxes.
- A KYC Process verifies:
  - User's Full Name
  - User's Home address
  - User's date of birth
  - User's ID Document that will then be used to confirm the above information.
- While KYC can be done manually, it can also be automated using KYC software like
  - SEON
  - Onfido - great choice that also helps detect fraud like Fake IDs and Deep Fakes

Fraud Detection

- Cryptographic hashing
- Distributed Ledger
- Immutable Transactions
- Different Types of fraud
  - Identity theft
  - Payment fraud
  - Credit Card fraud
- Ripple
  - Rippleshot, Ripples our system to detect fraud
- Ethereum
  - Use historic data to track patterns
  - Graph Neural Networks(GNNs)
- Stellar
  - Encrypted transactions

Conclusion: Which Crypto platform are we choosing and why?

- The Platform that best fits our needs is **Ripple.**
- Ripple is not fully Public like Ethereum
  - This is good because it allows for the integration of KYC, while fully open platforms can let anyone, including criminals, make transactions anonymously.
- Ripple allows for easy integration with AML, KYC and Fraud Detection tools and software.
  - Many financial institutions already use Ripple, so it is already a trusted company by banks
- Has very small fees and very fast transaction times between 3-5 seconds.
- Our Implementation process would include:
  - Make a government controlled version of Ripple blockchain
  - Enforce KYC at wallet creation
  - Integrate AML monitoring tools
  - Integrate real time fraud detection algorithms

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Any Questions?