## Patent Abstract for Serialized Asset Trading Pool Platform

This invention relates to a novel serialized asset trading pool platform that facilitates efficient and secure asset trading with minimal fees and high transaction speeds while leveraging established bank custody services for asset security and regulatory compliance.

Current trading systems including cryptocurrency, stock, gold, and other assets can be traded within the categories along with slow and expensive fees. With this invention different categories of assets can be traded without going through several process to be traded with fast and low fees.

Key Features:

- Serialized Asset Trading: Asset are represented by unique serial numbers within a pool, enabling efficient trading without physically moving the underlying assets.
- Seamless single process based inter asset trading over P2P network as shown Fig. 2.
- Low Transaction Fees: Achieved through serialized trading within the pool, resulting in significantly lower fees compared to traditional asset exchanges (e.g., 0.0001%).
- High Transaction Speeds: Enables rapid trade execution by processing transactions within the pool, exceeding traditional exchange capabilities (e.g., 56K+ TPS).
- Enhanced Liquidity: Aggregates asset from multiple custody providers, creating a deep pool liquidity for larger transactions and price stability.
- Transparency: Provides a publicly viewable transaction ledger while preserving user privacy through opt-in functionalities.
- Bank Custody Leveraged: Utilizes established bank custody services for secure asset storage and regulatory compliance, offering enhanced security and trust.

Benefits:

- Revolutionizes Asset Trading: This platform introduces a novel approach to asset trading with significant advantages over existing exchanges.
- Unparalleled Efficiency: Achieved through faster transactions, lower fees, and efficient pool-based trading.

- Enhanced Security: Leverages established bank custody practices, minimizing risks and promoting user trust.
- Increased Transparency: Provides public access to transaction data while protecting user privacy.
- Partnerships with Established Institutions: Collaborates with existing banks, fostering wider adoption and regulatory compliance.

Potential Applications:

- Asset Trading Platforms including cryptos, stocks, gold, and real estates
- Institutional Asset Investment Solutions
- Decentralized Finance (DeFi) Infrastructure
- Global Payment Systems

Detailed Patent Description:

The asset is labeled with specific database such that it shows the serial number, asset holder's ID, country of ID holder, country of asset custody provider, type of custody company, category of asset, name of asset, symbol of asset, amount of asset, transaction ledger, exchange engine, "from" ledger, "to" ledger, TBD 1, TBD 2,... TBD N shown as Figure 1.

Once the labeled DB set up within the pool of same categories of asset such as cryptocurrency, Bitcoin; then each serialized asset can be traded within the same category. Other assets can be traded with the third-party real-time valuation service such that gold to bitcoin can be traded seamlessly shown as Figure 2.

Detailed trading process is can be described as below:

- 1. Serialization: Participating banks serialize their crypto holdings.
- 2. Shared ledger: All banks access and maintain a shared ledger pool.
- 3. Transaction request: User initiates a trade within the pool, specifying crypto type and amount.
- 4. Matching: The ledger searches the pool for matching crypto assets.
- 5. Ownership transfer: Serial number of the matching crypto is transferred to the new owner, while the physical asset remains with the original bank.
- 6. Settlement: Cryptos and US dollars are used to settle the transaction.
- 7. Ledger update: Transfer details are broadcasted to all banks, updating their shared ledger pool.

- 8. Transparency: Public access to the ledger provides near real-time transaction visibility.
- 9. Host Custody service provider can provide anonymity with private wallets.

The patent could describe the system architecture, cryptographic mechanisms for securing serial numbers, transaction settlement processes, privacy-preserving mechanisms, and integration with bank custody services. The description should be detailed enough to enable technical implementation while maintaining legal defensibility.

Claims:

- 1. Trading based on serialized muti asset pools.
- 2. Serialization format which will be licensed by providing this format with a fee such as API to integrate with other networks.
- 3. Global multi asset trading on 24/7 seamless single P2P network.
- 4. Institutional custody wholesale backbone network with individual dynamic input/output retail network enabling global multi asset trading.
- 5. Real time valuation network provided by the 3<sup>rd</sup> party
- 6. Within the pool, the trading system be used as payment tool

6.1 Host exchange platform which has different type of assets with different type of denominations within the same assets to enable as payment.

7. Within the pool, the trading system can be used to provide the liquidity to the custody service.

7.1 If the custody provider wants to expand more than the amount hold, it can be done with insurance to cover the amount that is more than the asset held.

8. Host ledger is recorded on blockchain for immutability which is shown in real time to the general public for transparent operation.

9. Dynamic participation by individual retail traders through "Retail host pool"

10. Business model which licenses <Figure 1> format to use.

### Figure:

## <Figure 1>

Serial Number	ID	ID country						Symbol of Asset	Transaction Ledger	Exchange Engine	"From" Ledger	"To" Ledger	TBD 1	TBD N
	100				- ·									
1	123	USA	Korea	Bank	Crypto	Bitcoin	0.1	BTC	X blockchain	X trust	oxd	CX		

#### <Figure 2>



<Figure 3>

# Exchange System

