Træde Light Paper

Executive Summary v .7

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Introduction.

The Træde platform allows people to buy, sell, trade, gift and transfer any financial asset on the internet to control their financial future themselves, in their own way at their own time.

Cryprocurrencies like Bitcoin and Ethereum have shown that the underlying blockchain technology they use is able to securely trade and transfer value on the internet without banks or trusted 3rd parties controlling the funds. But while the technology provides for person to person reliable funds transfer the volatility and lack of any real asset backing of the crypto currencies themselves makes them a high-risk investment. The lack of the ability to scale up from the present limit of 40 or 50 transactions per second (Bitcoin or Ethereum) to say Visa's 50,000 transactions a second means the current blockchain systems cannot be used for frequent small purchases. The Traede group is developing a platform that provides for the creation and trading of digitised assets both real (€, $, gold) and virtual (cryptocurrencies) providing stable tokens with low processing fees.

Problem and Opportunity Statement

Problem - Unbacked digital assets

Recent advances such as storing apps on the blockchain (via Ethereum Virtual Machine) and smart contracts (contracts written in computer code), have provided the foundation for real assets to be imported onto the blockchain. However, some digital assets, such as tokens pegged to US Dollars, have no audit trail or accountability for the existence of the assets backing the tokens.

Traede will introduce digitized asset tokens automatically, continuously verified and audited.

Problem - Volatility

At present cryptocurrencies, in the eyes of the general public, exist only as speculative assets. They cannot function as a useful and broadly accepted medium of exchange until the public has confidence that any underlying currency is relatively stable. The recent wild volatility of most, if not all, cryptocurrencies has only highlighted this issue.

Individual Traede Asset tokens will be pegged to and backed by assets like gold, $, £ that have a long history of exchange, providing this missing stability.

Problem - Usability Scaling

Existing blockchains, such as Bitcoin and Ethereum, are limited in their transactions per second and ability to scale to millions of users. High capability in transactions per second and number of users is required to support the useful trading of digital assets and provide an extensive payment network.

Traede proposes to provide the increased transaction throughput and scaling, without high transaction fees.

Opportunity - Backed digital assets

We believe the ability to trade physical assets like gold or national currencies reliably, securely, quickly and with low fees will tip the balance for digitized assets and pubilic acceptance.

Most blockchain systems do not communicate with other systems, even those closely related or where such communication would benefit both blockchains through sharing information, coded applications, smart contracts or value.

Traede is providing communication channels where the user decides when and how to securely transfer or trade any financial assets they want between users worldwide.

Most blockchain systems have no agreed terms of governance. No constitution or agreement on how to make orderly changes, upgrades, and react to issues or emergencies.

Traede Foundation has a constitution and policies for resolving disputes, security issues, maintaining and improving the software ecosystem and for emergency situations.

The Solution – Traede group

The Traede Group is developing a platform that networks a tailored mix of blockchain technologies for the creation and trading of digital assets both real and virtual, providing stable tokens with low fee processing.

Traede plans to provide a staged entry of a wide range of asset classes onto ours and other blockchains. Such assets can include physical commodities such as gold and silver, currencies ($US, Euro, etc.), corporate securities, as well as other cryptocurrencies and tokens.

Trading of all these digital asset pairs will be via a high throughput peer to peer trading platform that will use a tailored combination of our technologies to maximize security and minimize transaction fees.

Importing digital assets into the Traede network will be verified by digitally signed contracts that verify each step of our asset origination, custody and audit process. We call this process OVA (Origin, Vault, Audit). Traede will first digitize gold and silver assets, and to this end, has already established contractual relationships for bullion procurement and vaulting and has all necessary regulation in place. Our operation follows the London Bullion Market Association (LBMA)) regulations, procedures and guidelines.

Use Cases

The Traede digital asset platform will deliver business and community value in several ways, including:

Trading commodities – The trading of precious metals or other commodities.

Remittance – Sending and converting currencies between parties nationally or internationally.

Payment System – Processing of contactless payments of currency or asset tokens using mobile apps and merchant facilities.

Crowd Funding – Our smart contract platform lets people fund projects, companies, and causes or to receive shares.

Trading Shares - Trading shares based on nominee structures in multiple jurisdictions.

Technical Challenges and Solutions

There are various issues in existing blockchain architectures, but the two major ones are keeping the full transaction history of everyone on all nodes (blockchain servers) and the ability to scale transaction throughput from 50 transactions per second to 100's of thousands of transactions per second. Currently computers in New York or London are effectively checking all transactions in Shanghai and Delhi which slows down the whole network. A full global transaction history on all participating nodes will always be a bottleneck towards a scalable payments system, we believe a solution is to record regional transactions locally and only verify globally when a transaction is between regions.

The Traede platform allows transactions between people in a region like New York to be processed locally but when the transactions are made to say London they are validated globally. The Traede platform proposes "federations" or groups of blockchains to validate transactions in a region while maintaining global consistency.

All transactions are still publicly verifiable and recorded in a distributed blockchain securely. The group's transaction throughput increases as you add more members so if one member can support 5000 transactions per second, then 10 members can optimally support up to 50,000, assuming there are no communication overheads.
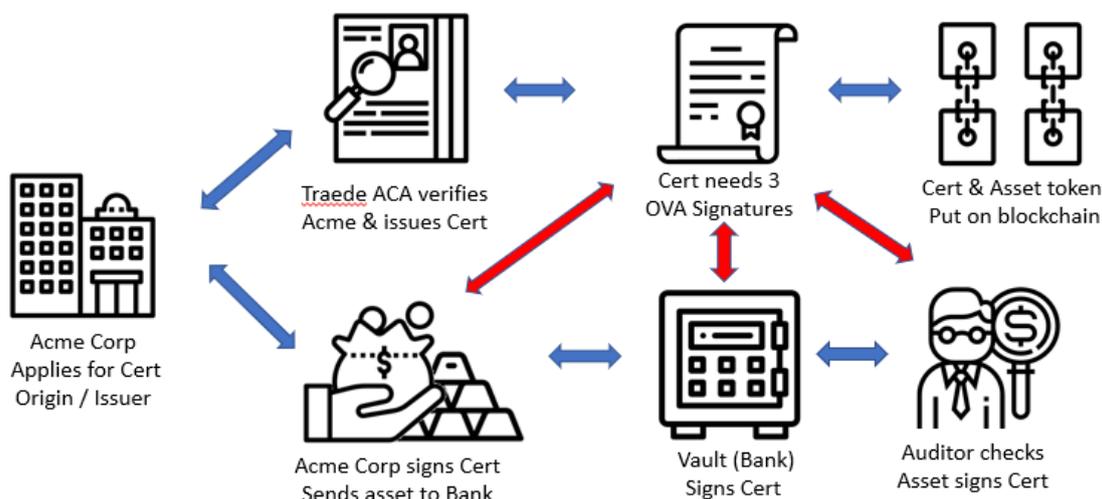
Further small partitions or subsections of a blockchain can be devoted to specific needs. An example is people wanting to trade $ for € (Dollar – Euro pairs) where we essentially restrict trading in these "pairs" to one blockchain system that has high capacity and transaction throughput for the $, € pair trades.

OVA Technology

The need to validate the underlying real backing of digital assets means we need a secure web-based verification mechanism and Traede are therefore developing the Origin, Vault, Audit process. This is where the Foundation hold identity and proof information on the blockchain which has public and private keys to sign the digital smart contracts transfer.

The OVA model sees the Traede Foundation constitute itself with Worlds Best Practice as a verifying authority for asset backed digital tokens. Traede Foundation will conduct full due diligence and publicly publish verification documents on its document blockchain. Traede Foundation will issue security contracts to groups and entities who supply "liquidity" like dollars or gold to the blockchain system after verifying their identity and complete legal status.

Independent counterparties for Vaulting (custody) and Audit (continuous verification) countersign the OVA contracts and a continuous, web-based audit trail is provided as part of the OVA process. For currencies kept in banks Web based programs automatically verify the dollar amounts in the nominated bank accounts that are holding dollar assets that are digitised. They verify that the totals are the same dollar amounts that are represented on the blockchain. By clicking on a coin token via the Traede wallet the contract can Initiate a real time app displaying matching audit totals from the bank and the blockchain.

Acme Corp Applies for Cert Origin / Issuer

Traede ACA verifies Acme & issues Cert

Cert needs 3 OVA Signatures

Cert & Asset token Put on blockchain

Acme Corp signs Cert Sends asset to Bank

Vault (Bank) Signs Cert

Auditor checks Asset signs Cert

Asset providers receive fees for the transactions or payments made via their assets. So, a provider of gold sees their gold being traded for dollars or Yen at a floor price they initially set. They then receive the dollars or yen but also all further trades in that gold generates fees which they continue to receive a proportion of. The same applies for issuers of other assets like Dollars, Yen, silver, shares, and any other national currency.

TWallet and its open API (Application Programming Interface)

The Traede platform specifies a high-performance gateway mechanism in the Trading Wallet (TWallet) for inter-chain communication. A TWallet API (to be openly published by the Traede Group) provides individual connections between blockchains and allows both message data and value to transfer between chains. Other wallet providers can use the API to connect to the Traede platform

The gateway mechanism allows individual users to ensure the validity of their own cross-chain communications. The TWallet can also send payments directly between any account holders on the Traede blockchain or even other connected chains like the Ethereum main chain.

Likewise, people who have Virtual currencies like Ether or Bitcoin on other blockchains can transfer them to the Traede blockchain and trade them with Traede blockchain users who wish to trade or own those tokens.

The Traede network uses a utility token "TRDE" to pay for infrastructure, running, upkeep of the network, and controlling spam and people trying to manipulate or harm the system. TRDE in turn derives its value from automatically receiving a portion of the fees received for transactions and trades on the network. These TRDE tokens are also tradeable with the TWallet similar to GLD (Gold) or USD (US dollars) etc.

Traede Wallet and API can routinely connect blockchain networks which have: -

- Smart contract functionality (the ability to code rules and agreements between parties)
- Can sign and verify messages with public and private keys (or via smart contracts)
- Can transmit secure messages via the Internet

Blockchain Technology

Traede is using technology consisting of both in house developed and open source blockchain frameworks with a targeted combination of technologies to provide a global, verifiably secure, scalable trading, remittance and payment system.

The Traede main chain can issue digitised real assets backed by ¥, €, $, gold and silver via OVA and then offload the transaction processing of trading and remittance to sidechains. These chains also have the support of a web-based Peer to Peer Distributed Trading Exchange or DEX which allows exchanging any pair, real or virtual on the blockchain be it $, €, ¥, gold, ETH or crypto tokens.

Summary of scalability and performance

Commercial and Financial applications often require a high transaction rate while most blockchain systems have not been designed to store large amounts of arbitrary data.

The Traede platform addresses these issues by using different blockchain systems in the areas that they are most applicable for. By adapting our different blockchain technologies to the different use cases, connecting them via our smart wallet gateways and using inter blockchain messaging we can achieve multiple solutions. This method allows for different financial uses of a person's financial resources at the same time providing them real, stable, verifiably backed digital ownership of their assets.

The Traede Roadmap

The Traede team will initiate a series of phased entries into the FinTech world with each one building on the previous.

Phase 1 of Traede network development focuses on piloting the system on Gold and Silver trading, as we have all necessary licences and infrastructure for this. Hardening of the system and running a full load, security test before going "live" with Silver assets then Gold.

Phase 2 will include trading of currencies and remittance so Financial services licenses are needed for this in whatever jurisdiction we operate in. Vaulting providers (Banks), Memoranda of Understanding and Auditing software read only access to selected banks accounts will be put in place.

Phase 3 will include "off exchange" share trading in a variety of shares including start-ups and blue chips through nominee custodianship as per OVA and via the DEX for both start-ups and blue-chip shares. Again, legal and licensing issues will be central at this stage rather than technical and infrastructure issues as the underlying technology from Phase 2 is suitable for this phase.

Summary and future goals

We believe that the technical whitepaper and roadmap provides for a platform that can be used for a wide variety of Financial, Enterprise and ultimately Governmental blockchain use cases. The Traede blockchain platform will in its first phases provide a scalable payment and trading solution coupled with stable real asset tokens being exchanged on the Internet.

In later phases we propose to be able to link together many separate blockchain systems and provide solutions to a great many use cases that are currently unreachable.

Future development goals: -

- Allowing custom blockchain designs to interact autonomously.
- Using new asynchronous consensus and staking mechanisms, and refining blockchain communications

Some of these future technologies are a work in progress and this paper is intended to establish intent and the direction of development rather than be totally declarative.

To get the latest news, announcements, and technical papers about the Traede project, join our mailing list, follow us on Twitter