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REAL ESTATE COINS PLATFORM

White Paper v0.1

Global Real Estate investment - Digital - Decentralized- Peer to Peer"

www.recoins.digital

INTRO

REcoins Platform is building a next generation global real-estate platform based on blockchain technology.
We believe blockchain has the potential to help accelerate the adoption of the Sharing Economy which has already begun to unleash industry disruption by opening up significant amounts of previously untapped private capacity and tokenization of property may completely change real estate transactions and ownership transfer as we know them.

That is why we are using the token crowdsale mechanism to pre-sell our product and finance development as opposed to traditional venture capital. With a secure, tamper-proof system based on the blockchain, users can trade parcels of property on our platform and bypass intermediaries in sales investing deals, transacting P2P (peer-to-peer), all of which will enhance ease of use and security for guests and hosts alike, streamlining user experience and driving accelerated adoption.

Real Estate is the largest asset class in the world, and also one of the most inefficient. Our aim is to empower the $427+ trillion global real estate market to seek a more transparent and liquid way to invest and trade.
Our platform will help subdivide individual parcels of real estate into tokens, and subsequently PTO (Property Token Offering) and list them on exchanges, starting with the decentralized ADEX exchange based on Ethereum smart contracts. Such endeavor would ease transfer of ownership, simplify fractional holding without minimal constraints, alleviate tax inefficiencies, make cross-border transactions simple, and eliminate substantial overhead faced in certain jurisdictions due to unnecessary middlemen. Tokenizing property will allow real estate assets to be uniquely identified via a digital record that contains information regarding occupancy, physical characteristics, legal status, historical performance, and financial position

Further, REcoins addresses the Ready and offplan real estate markets by lowering fees, using decentralized conflict resolution and making this market truly P2P, eliminating various middlemen, and also ensuring that reviews and listings are honest, as they are stored on an immutable blockchain.

Our platform is being developed as an open source framework with respect to tokenize property of assets, which continues to operate and trade on the Ethereum network, independent of platform's contributors.

We will provide a clean UI, utilizing EVM contracts under the hood. Additionally, Our platform tokens may be traded on centralized digital asset exchanges as well.

Eventual moonshot goal is once government property registers are fully blockchain- compliant and have distributed ledgers, is to partner with various jurisdictions to make buy and sell transactions of smaller units feasible with integration into such registers without having to first place real estate into incorporated SPVs.

There are currently multiple blockchain real estate registry pilot projects already in place specifically in Sweden, Georgia, Ghana, Ukraine, parts of Japan and USA (Chicago, Delaware), while multiple other jurisdictions are examining blockchain- enabled title registries.

Blockchain will entirely reshape the title insurance industry. By registering real estate on a distributed ledger, blockchain could streamline the manually intensive practice of examining public records when validating titles in real estate transactions.

According to Goldman Sachs estimates, blockchain driven property records could drive up to $4bn in cost savings due to reductions in headcount and actuarial risk in the US alone.

While blockchain technology is still in its infancy, and complete decentralized ledger of global property is not going to happen overnight, We plan to take a leading role in all facets of real estate globally to make this a reality, starting with disrupting the real estate investing market and tokenizing large real estate assets for trading.

Please refer to our timeline below for detailed overview of our current progress and future goals.

Abstract

In its current iteration, We provide main features to address known problems in today's global real estate:

Tokenized ownership

Tokenized ownership will simplify every type of operation with the real estate, including property investments and ownership transfers, either partial or complete. Real estate tokens representing a share in property ownership will allow for a liquid real estate market with transparent prices (price discovery).
Please note that our tokens are essentially membership certificates in the Platform, which give numerous rights and privileges to their owners provided compliance with KYC/AML our policies and proof of member activity confirmed by running a node on the member's computer, as discussed in more detail later. There is no passive expectation of income solely from holding our tokens.

• Listing fee charged in ERC20 compliant property tokens, in all properties listed through the Platform during their initial property token offerings. The platform enables property owners and developers to tokenize property by creating customized smart contracts and perform a token distribution to either sell property (partially or completely) or attract financing for its construction. The size of the listing fee is initially set at 5% of the underlying asset and, subsequently, determined by voting of the token holders.
We escrow to our token holders proportionately, provided such our token holders are running a node on their computers.

• Influence on the platform and ability to propose, vote on and aid further developments to improve the efficiency of real estate globally, as well as boost Our global adoption and growth.
Token holders agree upon every decision taken within the platform, affecting both tokenizing property service, by the use of a voting mechanism. Our token holders vote for or against the proposals created by most reputable holders, covering all activities within the platform.

Blockchain – Quick Review

Blockchain is fundamentally a new type of database technology that is optimized to tackle a unique set of challenges. Historically, databases have been used as central data repositories by organizations to support transaction processing and computation. However, databases are rarely shared between organizations due to a variety of technology and security concerns.
Blockchain is a shared, distributed database of transactions among parties that is designed to increase transparency, security, and efficiency.

Blockchain is a database (with copies of the database replicated across multiple locations or nodes) of transactions (between two or more parties) split into blocks (with each block containing details of the transaction such as the seller, the buyer, the price, the contract terms, and other relevant details) which are validated by the entire network via encryption by combining the common transaction details with the unique signatures of two or more parties.
The transaction is valid if the result of the encoding is the same for all nodes and added to the chain of prior transactions (as long as the block is validated). If the block is invalid, a "consensus" of nodes will correct the result in the non-conforming node.

• Security: Blockchain relies on encryption to validate transactions by verifying the identities of parties involved in a transaction. This ensures that a "false" transaction cannot be added to the blockchain without the consent of the parties involved. A complex mathematical calculation known as a "hash" is performed each time a transaction is added to the blockchain, which depends on the transaction data, the identities of the parties involved in the transaction, and the result of previous transactions. The fact that the current state of the blockchain depends on previous transactions ensures that a malicious actor cannot alter past transactions. This is because if previous transaction data is changed, it will impact the current value of the hash and not match other copies of the ledger.

• Transparency: By its very nature, blockchain is a distributed database that is maintained and synchronized among multiple nodes – for example, by multiple counter-parties who transact with each other frequently. In addition, transaction data must be consistent between parties in order to be added to the blockchain in the first place. This means that by design, multiple parties can access the same data (in some cases locally within their organizations) – thus significantly increasing the level of transparency relative to conventional systems that might depend on multiple "siloed" databases behind firewalls that are not visible outside a single organization.

• Efficiency: Conceptually, maintaining multiple copies of a database with blockchain would not appear to be more efficient than a single, centralized database. However, in most real-world examples (including several of the case studies we examined in capital markets), multiple parties already maintain duplicate databases containing information about the same transactions. In many cases, the data pertaining to the same transaction is in conflict – resulting in the need for costly, time-consuming reconciliation procedures between organizations. Employing a distributed database system such as blockchain across organizations can substantially reduce the need for manual reconciliation, thus driving considerable savings. In addition, in some cases blockchain offers the potential for organizations to develop common or "mutual" capabilities that eliminate the need for duplication of the same effort across multiple organizations.

Problem – Buying & Selling Property

Real estate throughout time and to this day remains the greatest source of wealth for most families, in fact, it is the largest asset class globally. History tells us that more great fortunes have been made and lost in this asset class than any other. However, despite having a tremendous size ($217tn) and volume ($1.4tn), it remains one of the most inefficient of assets. Over time, various attempts have been made to make this market more manageable and liquid, nonetheless every individual or institution which buys and owns real estate faces non-transparent transaction costs, asymmetric information, property rights opaqueness, variability in taxes, and a host of other issues.

Efficient Market Hypothesis Theory states that the price of a security at any given time reflects all of the available pertinent information. While there may be appropriate application for this theory relative to exchange tradable assets such as stocks and bonds, it is currently inapplicable relative to real estate. While over the long term pools of real estate might be relatively price- efficient, purchases of a particular property are often driven by individual circumstances and done with imperfect information, and limited number of buyers.

Most real estate ownership globally is single ownership, or at most divided between just a few parties. This creates a problem as rising prices have outpaced consumer income and savings and have left ability to purchase real estate assets to just a small subset of the population. Further, high transaction costs and inefficiency in transactions themselves make redistribution of this market sub-optimal. Frequently, the cost of moving from an overly large house into a smaller one outweighs the savings and vice versa. institution which buys and owns real estate faces non-transparent transaction costs, asymmetric information, property rights opaqueness, variability in taxes, and a host of other issues.

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Also, investing in real estate for most individuals and corporations typically lacks any global reach as paperwork, due diligence and administration in a foreign jurisdiction involves knowledge and prohibitive costs.

Solution – Buying & Selling Property

We are the decentralized real estate platform, built on top of the Ethereum network. With rapid rate of adaption of crypto-assets, We strives to remedy the situation of illiquidity and opaqueness in the real estate market. We serves as a turnkey solution for listing a real estate asset for trading in a tokenized form in a similar way that stocks are listed on exchanges such as FTSE or Dow jones.
The token holders, being the platform's members, work to find property owners or developers willing to sell their property assets or a part of their development to raise funds for the construction. Decentralized voting is performed with the use of EVM smart contracts to either accept or reject a new listing. In case a new property is approved to list on the platform, ATL holders vote for the property's law firm and management company Approved lawyer, or competent local authority in each respective jurisdiction, verifies legal documentation provided by the listing party and digitally signs each document pertaining to the property. Once signed by the local authority, each document is hashed and pushed into our Distributed Data Store ("ADDS"), while its hash is recorded in the Ethereum blockchain. This ensures that documents become immutable and virtually impossible to forge, as any change made inside an ADDS document will lead to a different hashing result, which would differ from the hash previously recorded in the Ethereum blockchain. By applying this operation to every item stored in ADDS, we create a permanent link to every document from the tamper-proof blockchain. As sometimes documents need to be updated legally, we use ADDS versioning provided by the IPFS protocol5.

Tokenization and Listing for Trading of Properties

Property Inventory and Sourcing

We will allow property owners and developers to tokenize their assets and list them for trading. Our token holders will endeavor to find new properties and also accept incoming requests from such entities.
Initially we plan to tokenize properties in select transparent jurisdictions such as UAE, USA, UK, and eventually, as our expertise grows expand globally to capture further market share. Sourcing and diligence for each jurisdiction will be done in accordance with existing laws and procedures in each jurisdiction.
We will develop a framework for each country which will be implemented and verified on the blockchain via digital signatures by respective local authorities.

Property Token Offering

Once a property has been identified and verified by local authorities, and its details published on the platform, a date will be set for the properties' Property Token Offering ("PTO"). Price for the listing offer will be taken from the developer or selling party.
Lawyers/trust companies who digitally signed all certificates and will be handling transfer of ownership are involved off the chain with Us supervising the process. All requisite documentation and offering documents will be published on Us for prospective PTO holders to assess the property for potential purchase. Subscription will be handled via smart contracts and aggregated into a fund which will be collected via Our escrow from the start of the PTO until expiry date set at the start of the process. If during this time period the fund has not reached capacity, We escrow will release tokens back to the addresses of the token holders. Should the fund reach capacity set forth by the

seller, funds will be sent to the seller and PTO tokens will be distributed to the token holders of the property. Subsequently PTO tokens will be listed for trading on exchanges, starting from the decentralized ADEX exchange to increase liquidity and price discovery of the tokenized real estate asset.

Rental Income

The main recurring income as with traditional property holdings is rental income. It is the duty of the property management company to collect this income and redistribute it to token holders. Rental income is distributed automatically by using the property contract functionality, allowing for redistribution of funds in any ERC20 compliant token or ETH to platform token holders proportionately to their PTO holdings on the Our Platform.
Rental income is distributed to the property token holders after fees are deducted by the management company, and the reserve fund is topped off should it be less than 10% of the property price for the past 6 months of trading, or initial price of the PTO if 6 months has not elapsed.

Reserve Fund

During the PTO of a real estate asset, a 10% reserve fund will be created and held in the EVM smart contract escrow of the property DAO, or child DAO. The reserve fund is proportional property of the asset's token holders, however it is held in escrow, to pay the management company and cover any unexpected costs associated with the property. In the secondary market when property tokens are trading, while the reserve fund itself will not be transferred from the seller to the buyer during trading, price of the tokens will imply the reserve component in their price. This is true due to the fact that if the property is completely sold, in the event of a buyout or squeeze out, the reserve fund will be liquidated, and proceeds distributed to former token holders pro-rata.
Services which will be covered by the reserve fund are structuring fees, escrow fees, property maintenance and repair fees, property management fees, property tax on rental income, insurance fees, property renovation fees, legal costs, and any other auxiliary expenses born by the management company in servicing the asset. The property management company has discretion over the reserve fund for day to day expenditures, in the event that single proposed expenditure does not exceed 3% of the value of average of 6 months trading price of the asset or initial price of the PTO if 6 months has not passed elapsed. Expenses which exceed this threshold are voted on by PTO holders.
Due to current cryptocurrency volatility reserve fund assets will be automatically converted, via a smart contract, to fiat-like currency via Tether14 upon entering the reserve fund. The reason for this is that spending associated with the reserve fund is closely associated with fiat currencies. Funds from the reserve fund will be paid as necessary to the management company, which would be controlled by the use of a voting system (choice of the management company).
The management company will have access to the reserve fund, however possibility of embezzlement will be minimized via the Platform, by tracking the transactions made by the management company in a real-time and by voting on proposals to choose a different management company.

Reserve Fund Drawdown Provision

In the event that the reserve fund is drawn down to 2% of average 6 months trading price, or initial price of the PTO if 6 months has not elapsed, and is not replenished in time by proceeds from rent, liquidation of the property will commence. Property token holders will vote on a listing broker/public marketplace and upon sale of the property, proceeds of the sale and the reserve fund minus applicable brokerage commissions will be proportionally distributed among PTO token holders.

Duties of the Management Company

Property management company is responsible for:

• Setting the initial rent level, collecting rent from tenants and adjusting the rent. They are also responsible for finding and screening tenants, handling security deposits, managing tenant complaints/emergencies, handling leases, move-outs, complying with property safety standards, and dealing with and initiating evictions.
• Physical management of the property, including regular maintenance and emergency repairs. They are in charge of, or must hire someone to perform such task as extermination, checking for leaks, landscaping, shoveling of snow and removal of trash. This maintenance aims to keep current tenants happy and attract new tenants. They must also perform repairs when there is an issue, or must hire someone to attend to it.
• Operating within the set budget for the building. In certain emergency situations when the occupants (tenants) or physical structure (investment property) are in danger, they may use their discretion to order repairs or likewise without concern for the budget.
• Keeping thorough records regarding the property. This should include all income and expenses; list of all inspections, signed leases, maintenance requests, any complaints, records of repairs, costs of repairs, maintenance costs, record of rent collection and insurance costs. All of these records and actions will be logged/recorded on the blockchain.
• Filing and paying taxes for the property and its rental income for which funds will come from the reserve fund.

Change of Management Company

Every year, property token holders will vote whether to keep or change the property management company. If more than 50% of token holders vote to change the management company, a proposal will be put forth to token holders to select a licensed management company from a list of proposed locally respected providers.

Buyout or Purchase of Significant Stake

Similar to fiat exchanges any token holder may propose to buy out the property in its entirety or purchase a significant stake of the tokens. This will enact a smart contract voting mechanism whereby token holders will vote to accept or reject the price offered to them. A threshold of 95% of token holders is necessary for mandatory buyout procedure to take place. In this event the acquirer will receive 100% of all tokens, in exchange for ETH which will be distributed pro rata among former token holders. In the event that the acquirer chooses to buy a significant stake and not purchase the property entirely, token holders will be able to tender their tokens at the proposed price.

Delisting/Buyout of the Property

In the event that a majority token holder acquires 90% or greater position in the asset, a squeeze-out clause may be enacted, by this token holder, whereby reaming token holders will be bought out at the average price of 6 month of trading, or initial price of the PTO if 6 months has not elapsed. Details of Property Offerings

REcoins has specific requirement and process for listing PTOs which involves the following:

1. Listing of technical and legal documentation of the real estate asset in sufficient for ownership transfer in said jurisdiction.
2. 2. Real estate asset must meet listing requirements of the platform which are currently defined as estimated value of $100,000 or greater, and having a holding structure which is absent of liens. This limit is imposed initially during the pilot of the Platform and will be further refined by Our token holder voting. Subsequently token holders will be able to vote to modify this value in general, or on a case-per-case basis.
3. Our token holders will vote on the competent legal entity which will verify validity of the transaction and property in respective jurisdiction.
4. In the event that the law firm or competent authority in the property's jurisdiction renders a positive decision, with respect to the holding structure, and ownership of the asset, the PTO will be generated with the number of tokens equal to the square millimeters of the asset.
5. We act as an escrow of ETH or BTC which are sent by subscribers during the initial PTO of the asset. Subsequently, after the asset is inserted into a Special Purpose Vehicle (SPV) structure and tokenized, escrow assets are released to the seller of the real estate asset.
6. Listing fee equal to 5% of the newly issued PTO tokens are retained by ATL Platform, and distributed pro rata to our token holders who have gone through KYC/AML and have done work as an active node on the platform.
7. Reserve/insurance fund is created for every PTO. This fund remains the property of each token holder, however it is escrowed in the event that the SPV which owns the property needs to spend funds on the management company, lawyer fees or other unforeseen circumstances.
8. After the PTO takes place, tokens of the asset are listed and trade freely on the platform.
9. Trading of Tokenized Assets
10. Our codebase includes ADEX (decentralized exchange) EVM smart contracts to allow for a safe and secure method of exchange between Platform tokens and property tokens.
11. Ether and other ERC20 tokens may also be exchanged for property tokens on the decentralized ADEX exchange.
12. Exchanging tokens by means of this model reduces a number of risks associated with traditional centralized exchanges – e.g. a risk of failure to fulfill its obligations to customers. Nevertheless, it is possible for some part of the tokens to be tradeable at centralized digital currency exchanges as well. From an economic point of view, there is an incentive for both Our token holders and property token holders to contribute to tokens being traded at centralized exchanges.
13. Tokens are traded via a traditional two-sided market consisting of bids and offers. If there are more buyers or sellers the market mechanism will move the token price, and thus the market capitalization of the asset, to a clearing level in accordance with the market's assessment of the property value.

Technology

Overview

In terms of technology, Our Platform is a standalone P2P network with the custom protocol built for purposes of digitizing real estate in a decentralized way. This network is governed by Ethereum smart contracts (DAO family), implementing and enforcing rules for entities to interact in tokenizing property.

We will use a list of technological concepts to implement the model described above.

Ethereum DAO Family
Ethereum Smart Contract Escrow
Decentralized Reputation
Arbitration System
Voting
on the Blockchain
Ricardian Contracts
Distributed Data Store
Data Mirroring
Historic Versioning

Ethereum platform with its virtual machine (EVM) is by now the most established blockchain- based distributed computing platform with smart contract functionality. It powers both tokenization and contracting aspects of the Platform.
The platform implements its own protocol, responsible for data distribution and mirroring, historic versioning of documents, distributed data storage, arbitration and reputation in the decentralized network. The rest is implemented in the form of Ethereum smart contracts and executed by EVM: DAO family, voting on proposals, escrow, core and property tokens, rental agreements and auxiliary contracts. Our protocol provides a bridge, connecting our network with the Ethereum-based smart contract infrastructure governing the Platform.