

Real-Estate Asset Management & ICO using Ethereum Blockchain

Application: Digitization of assets on the Ethereum Blockchain, incentivization by means of ERC20 tokens

Services Offered: Full Stack development, Smart Contract development, Initial Coin Offering (ICO) framework

Tools: Ethereum, Solidity, AngularJS, Truffle, MySQL

Status Quo

A Technology Company focusing on the Real Estate industry wanted to connect real-world assets through the Blockchain network and make it accessible for micro investors worldwide to invest in assets in entirety or in fragments.

Key Highlights

Key Success:

Raised \$6M through the ICO and digitized their asset portfolio

Domain:

Real Estate Asset Management

Duration:

3 months - Ongoing

Team:

1 Blockchain Architect
2 Blockchain Engineers

Technology:

Ethereum, PHP/ JavaScript,
Web3, Solidity

Challenges

- Real estate investment involves lot of money, as there is no option to own a fraction of a property, thus making it unaffordable for a vast majority of people.
- High transaction cost being paid to agents and brokers, for closure of deals, adds to the investment costs.
- Huge amount of paperwork in the current system consumes considerable amount of time and burden for the related parties.
- There is a severe lack of transparency and difficulty in maintaining the immutability of records in the system.

Need for Blockchain

- ✓ To record and expedite the real estate investment and operations process, in a transparent and immutable way.
- ✓ All parties involved in the process are brought together under the same network.
- ✓ Reduced paperwork and back-and-forth communication significantly reduces time and related costs.

Key Requirements

- ✓ Create a platform for Initial Coin Offering (ICO) using ERC20 tokens.
- ✓ Provide a user interface for buyers and sellers to meet and transact in the same network.
- ✓ Transfer of ownership in a secure and transparent manner, using the Blockchain infrastructure.

Approach and Implementation

- ✓ User registration and dashboard features were implemented in a web application using PHP with MySQL backend database.
- ✓ Users register using the Sign Up page into one of the following categories:
 - Buyer
 - Seller
 - Affiliate
 - Investor
- ✓ Asset management functionalities for the admin user(s).
- ✓ User registrations are backed by KYC verification.
- ✓ Investors can buy tokens for assets and are entitled to profit/ dividend.
- ✓ A buyer can buy a property in its entirety or a portion of it. Tokens will be transferred according to their stake in the property.
- ✓ Users will buy and sell their assets through the platform.

- ✓ All assets will be managed within the platform and 80% of the profits will be returned to affiliates on pre-defined intervals.
- ✓ Smart Contract was written in Solidity for:
 - Token Creation
 - Token Transfers
 - Asset Creation
 - Transaction between Buyer and Seller
 - Processing of Dividend Pay-outs

Business Impact

- ✓ Close to \$6 Million was raised through the Initial Coin Offering.
- ✓ Transaction costs were considerably reduced, since the platform provides direct link between the buyer and the seller, bypassing agents and brokers.
- ✓ Faster transaction processing due to distributed technology and data being available quicker.
- ✓ Approval process is faster as all the parties are connected on the same platform/ network.
- ✓ Transparency and security of transactions was greatly improved as every event is recorded on the Ethereum Blockchain.