

Cardano Solutions to Property Industry Problems: Project No. 1100070

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This is a closeout report on the Catalyst project *Cardano Solutions to Property Industry Problems*. The project number is 1100070. The goal was to provide tamper-proof blockchain solutions to property-related issues such as e-commerce, fractionalization and tokenization.

This required the development, testing and deployment of a Cardano MVP Smart Contract application where property is fractionalized and tokenized. This addresses property liquidity challenges, allowing anyone to buy property using ADA without requiring large sums of money. It also resolves delays caused by KYC processes and Web2 database manipulations.

The application is available at <https://cardanopropertysolutions.co>, with its source code accessible at <https://github.com/wimsio/cardanopropertysolutions>.

Main Features of the Application

- **Authentication:** Administrators and property listers are authenticated.
- **Verified Property Listings:** Properties verified and cleared by the Property Registry Office are listed. Each property has a uniquely issued ERF stand number, which becomes the tokenized property ID.
- **Fractionalization and Tokenization:** The system takes the given price of the property and creates shares, which are minted as tokens on the Cardano blockchain.
- **Marketplace Creation:** Security NFTs—including the Thread Token, Reference Token and Registry Token—are minted. These are locked to separate script addresses for security purposes instead of being stored in user wallets.
- **Token Inheritance:** Minted property share tokens inherit the policy IDs, transaction hashes and transaction indexes of the Thread Token, making them easily traceable on the Cardano blockchain.
- **Token Listing and Trading:** Property share tokens are listed on the market with prices for public purchase. The app allows sellers to update prices, cancel sales and buy back tokens where possible.
- **Public Access:** The public can buy and resell property tokens without registering. They need only a Cardano wallet (e.g., Lace, Nami, Eternl). The system tracks all resold tokens, which are verifiable on the blockchain via the Reference Policy ID.
- **Custodial Security:** Bought tokens reside in the custodial investor's wallet, making trades secure from centralized threats.
- **Reports:** The application includes reporting features to track trade activities.

Next Steps

The next phase of the project involves gathering more user feedback, improving the application and adapting it for other industries needing fractionalization and tokenization solutions. Two businesses have already expressed interest: Farmer's Token in Botswana and Cassava Exports in Ghana. 2025 will see the development of more apps like this for the above stated industries.

Lastly, the project is open-source and all interested developers are welcome to join and contribute.