GEORGIA LAND TITLING SYSTEM
https://github.com/exonum

CAPSULE

The blockchain-based land titling system allows the public to easily verify the ownership of a property deed without fear of manipulation or theft from government administrators. Citizens can verify the ownership of a land title from their smartphone, reducing the risk of fraud. Transparency in land ownership fuels economic growth as property owners can leverage their land as an asset for investments. The Republic of Georgia currently uses the platform, but it is open for reuse by any other jurisdiction because it is open source.

PROJECT STATUS

The National Agency of the Public Registry (NAPR) in the Republic of Georgia currently uses the blockchain-based land titling system to facilitate a number of services.

CHALLENGE SURVEY ASSURE ADDRESSES

Accurate and transparent land registries allow landowners to leverage property for economic growth, playing a vital role in global development. Despite reforms to increase transparency in the Republic of Georgia's land registry system, officials could still arbitrarily alter land titles and left the public skeptical of the database's integrity. The NAPR sought a solution that protected the data from internal manipulation and external cyberattacks and instilled trust in the integrity of the national digital land registry system.

KEY FEATURES OF THE SOLUTION

- The blockchain-based land title system is a back-end addition to the existing NAPR land registry system which uploads an immutable hash, or digital receipt, of a land transaction to the Bitcoin blockchain. The front-end application was left unchanged to reduce confusion by users.
- The timestamp appended to each hash proves to the owner that the land record has not been altered since the original transaction was initiated by the user and authorized by the NAPR.
- Anchoring the digital receipts to the Bitcoin blockchain extends the security and transparency of a public blockchain to the land registry database, where stakeholders can freely access and verify information without the fear of manipulation by hackers or corrupt officials.
- Users can log into the NAPR website on their computer or mobile devices and to access records which are cryptographically proven to be legitimate.
- The project has extended to process the purchase and sale of land titles, registration of new land titles, demolition of property, mortgages and rentals, and notary services.
- The back-end blockchain API uses open source components so other governments with high-quality digital databases can prove the provenance of land records to their citizens.

BROADER IMPACT

Inaccessible land assets are a major impediment to international economic development, with an estimated $9.3T in global assets locked because of inadequate proof of ownership. Governments can adopt this open source solution to verify land ownership for government programs related to benefit programs, disaster relief, and financial aid. Citizens of governments using this technology can leverage their property for equity and gain access to financial services. Businesses and investors can reduce the financial risk of buying property or building partnerships by verifying legitimate ownership of land titles before making purchasing decisions.

COLLABORATORS

The project grew out of a partnership between blockchain hardware and software company BitFury and the NAPR in the Republic of Georgia. The Blockchain Trust Accelerator, a project of New America, provided strategic support for program development, including stakeholder coordination and communication outreach.