Title:

PK Labs / Aztecscan

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Summary

The purpose of this proposal is to build a fully functional explorer allowing users to easily access the main Aztec blockchain entities and observe changes in their states. This includes information about blocks, transactions, and contracts.

Estimated Start and End Date

- Start Date: August 1, 2024
- End Date: November 30, 2024
- Duration: 4 months

Deliverables

The Explorer will be built as a website consisting of the frontend, backend, and database components. The website will contain the following elements:

- Home page - The overview page with a search field, a list of the latest blocks and transactions, a total number of blocks, contracts, and transactions.
- All Blocks page
- Block page
- Block page
- All Transactions page
- Transaction page
- Transaction page
- All Contracts page
- Contract page
- Contract page
- Search field - An input in the navigation bar allowing users to search across contracts, transactions, and blocks.

Block, transaction, and contract pages will contain all data required in the RFP. Still, it will be finally confirmed during the indexer backend development stage based on the indexing complexity.

All applications will be open-sourced under the MIT license and available for the community.

Team

PK Labs is a blockchain software development team working with many well-known ecosystems and startups like Starknet, Celestia, Astria, Argus, and Tezos. Our team has more than 8 years of experience in building production-grade blockchain applications, including explorers and indexers serving thousands of users. The latest applications include:

- Celenium - Celestia Explorer
- DipDup - Multichain selective Indexer inspired by The Graph
- TzKT - Tezos Explorer and API
- Better Call Dev - Tezos dev-centric smart contract explorer

The team has a strong reputation as a reliable software development team. We focus on delivering high-quality applications and solving user problems in the most efficient way possible.

Grant milestones

Milestone 1: Infrastructure and Data Extraction (August)

- Set up blockchain node and data extraction module.
- Fetch and decode block and transaction data.

Milestone 2: Database and Backend Development (September)

- Data models development.
- Indexing service development.
- API Service for indexed data development.

Milestone 3: Frontend Development and Search Functionality (October)

- Design and develop a user-friendly interface with SSR.
- Implement search functionality for transactions, blocks, and contracts.

Milestone 4: Testing and Deployment (November)

- Conduct thorough testing on the testnet.
- Deploy the block explorer and ensure high availability and minimal downtime.
- Set up a monitoring system for tracking uptime for each service, node, and application.
- Continuously improve UI/UX based on user feedback.
- Prepare for mainnet launch and ensure long-term support for the Aztec network.

Long-term roadmap

Aztec stores both public and private data which means that the implementation of an explorer with public information only will not be sufficient to fully observe the Aztec state. For this reason, the explorer development will start by supporting all public information first and then adding the possibility of creating local user-specific private indexes stored on users' devices and accessible with the Viewing key.

Major roadmap milestones are:

1. (current proposal) Development of the Explorer v1 displaying public information about blocks, transactions, and contracts.
2. Display user accounts and other smart contracts with separate views.
3. Display contract classes.
4. Display transaction events.
5. Display contract calls.
6. Display L1-L2 messages.
7. Display tokens and NFTs.
8. Create Aztec network stats.
9. Develop the public data API.
10. Adding local indexes of private user-specific data accessible by the Viewing key.

Grant amount requested

- $38,500 Development

- $5,000 Design
- $1,500 Infrastructure

TOTAL: $45,000

Grant budget rationale

The development of the explorer will take around 4 months and require the involvement of 4 team members: backend developer, frontend developer, designer, and product manager. Considering that all team members are senior in their field, the requested project budget is not significant and even optimistic for the amount of work required to complete the project with the desired quality.