ATARCA

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Developer documentation for anti-rival tools

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ATARCA

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1.1 Executive summary

The Talko NFT Share Platform is a cutting-edge solution for creating, sharing, and endorsing non-fungible tokens (NFTs) on the blockchain. The platform is built using a variety of modern technologies, including React for the frontend, a backend service for metadata storage, Solidity for smart contract development, and a Graph blockchain indexing service for scalable querying of blockchain data.

The frontend provides a user-friendly interface for viewing, minting, and sharing shareable NFTs (sNFTs). It utilizes React, a popular JavaScript library, to create a responsive and dynamic web application that can be accessed from any device.

The backend service is responsible for storing important information such as consent for each participating wallet and the metadata of each token. It utilizes MongoDB database cloud systems to ensure data security and efficient retrieval.

The smart contracts written in Solidity enable the creation of various types of NFTs. So far, three types have been utilized: contribution sNFT, like NFT, and endorsement NFT. Contribution sNFTs enable recognizing a specific member's contribution to a community. Like NFT and endorsement NFT can be used to endorse other NFTs on the platform. Solidity is a popular programming language for developing smart contracts on the Ethereum blockchain, providing a secure and reliable environment for creating decentralized applications.

To ensure scalability and efficiency, the platform utilizes a blockchain indexing service deployed on thegraph.com. This indexing service allows for fast and efficient querying of blockchain data, making it possible to handle large volumes of data while maintaining high performance.

Bespoke social media integrations provide updates to Twitter and Discord servers of new tokens minted on the Talko NFT Share platform.

In summary, the NFT Share Platform is a state-of-the-art solution for creating, sharing, and endorsing NFTs on the blockchain. It combines modern technologies and best practices to provide a robust and user-friendly platform for blockchain enthusiasts and developers alike.

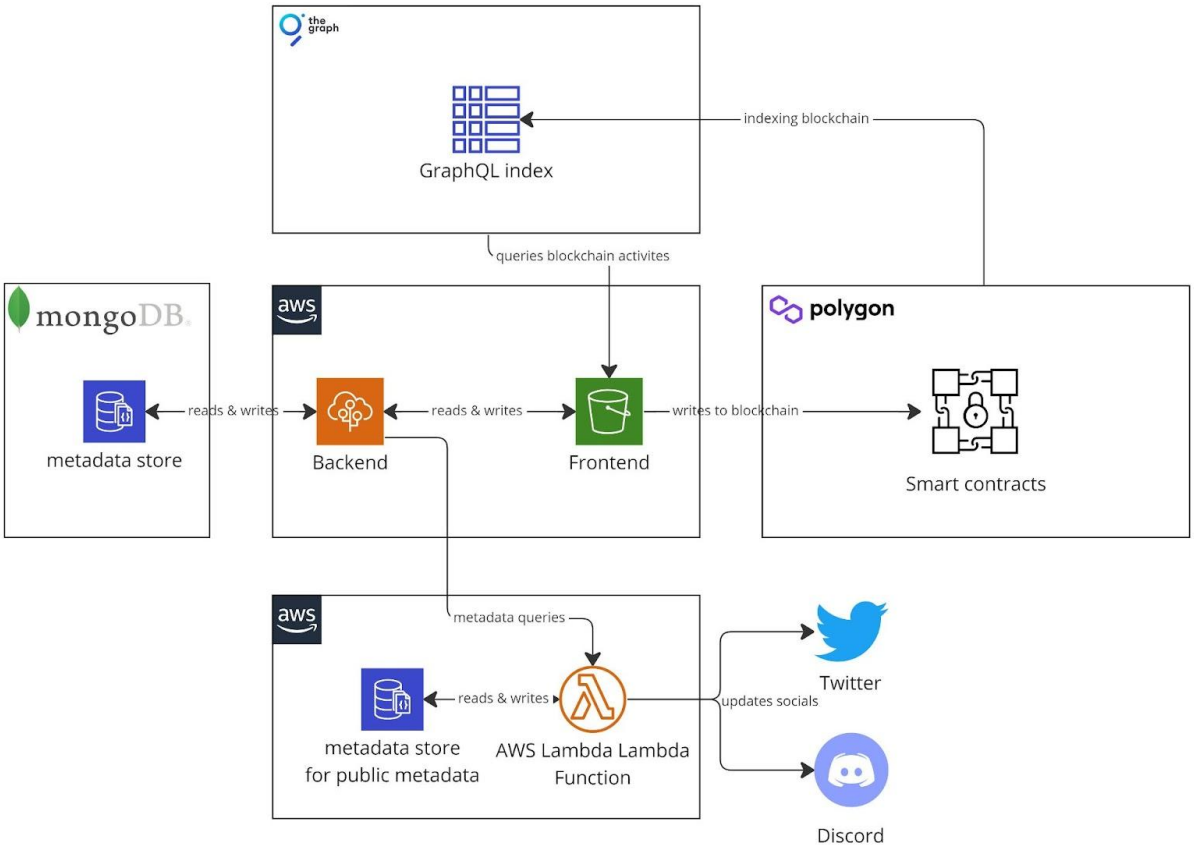

Figure 1. The high-level architecture of the Talko NFT Share platform showing how different parts of the system interact with each other.

1.2 Developer Documentation

The NFT Share Platform depicted in Figure 1 provides developer documentation to assist developers who are interested in building on or expanding the platform. The documentation is available across seven distinct GitHub repositories (Table 1), each of which corresponds to a different component of the platform.

The frontend repository (1/7) offers documentation for creating and deploying the React-based frontend application, while the backend repository (2/7) provides information on the backend service and its associated databases.

The contracts repository (3/7) offers comprehensive documentation on the smart contracts used in the platform, including the creation of standard NFTs and endorse NFTs. *The subgraph* (4/7) repository provides documentation on the blockchain indexing service implementation and its deployment on thegraph.com.

The dynamodb worker (5/7), *metadata socials updater* (6/7), and *discord integration repositories* (7/7) provide documentation and a reference implementation for updating newly minted tokens on Twitter and Discord, based on data available from the subgraph and the Talko backend APIs.

With these repositories, developers can acquire a detailed understanding of the platform's architecture, technologies, and capabilities, making it easier for them to develop and customize the platform according to their specific requirements.

Table 1. Links to all documentation repositories mentioned in this document.

Documentation for each repository
1. **https://github.com/ATARCA/nft-share-platform-frontend** 2. **https://github.com/ATARCA/nft-share-platform-backend** 3. **https://github.com/ATARCA/nft-share-platform-contracts** 4. **https://github.com/ATARCA/nft-share-platform-subgraph** 5. **https://github.com/ATARCA/talko-dynamo-db-worker** 6. **https://github.com/ATARCA/talko-metadata-socials-updater-worker** 7. **https://github.com/ATARCA/nft-share-platform-discord-integration**

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