

RFP Proposal: NFT market built on Filecoin and Hedera Hashgraph

Name of Project: NFT browser using HTS and Filecoin's decentralized storage service

Link to RFP: Please link to the RFP that you are submitting a proposal for.

RFP Category: `app-dev`

Proposer: `Hashgraph-Exchange`

Do you agree to open source all work you do on behalf of this RFP and dual-license under MIT and APACHE2 licenses?: Yes

Project Description

We designed an SDK that integrates existing Filecoin storage service and Hedera Token Service (HTS). It allows users to create non-fungible tokens (NFTs) and allow storage of larger files associated with HTS tokens (images, videos, JSON metadata, etc.) on the Filecoin network.

The project makes it easier for developers to create Dapps without having to do a dive deep into the concepts of Filecoin and Hedera. Hedera's native file service(HFS) is inefficient for storing large files. The maximum file size in HFS is only 1,024 kB and the overall limit of a transaction is only 6 kB. So Files had to be broken into smaller chunks and multiple append calls had to be made to store it on chain. This limitation made the process of creating NFTs using HTS and HFS time consuming and exorbitant.

To overcome this, the project integrates Hedera Token Service(HTS) and NFT.storage, a service backed by Protocol Labs and Pinata specifically for storing NFT data. NFT.storage provides an abstraction to simplify Filecoin integration. It can store NFT's upto 32GB in size and the process is a lot faster than using HFS. So with this approach we get more storage space and less time to upload files.

Deliverables

We created a demo application that uses this SDK to build an open source end-to-end NFT marketplace demo application that

1. Showcases the functionality of the Decentralized Storage SDK and
2. Is used by other developers in the community as a reference architecture.

The demo application includes:

- NFTs created on Hedera.
- Multimedia associated with the NFT stored on Filecoin.
- JSON metadata schema associated with those NFTs on Filecoin.
- Accepting HBAR and FIL (at a minimum) for payment of NFTs.

Development Roadmap

Milestones:

- M1 (Week 1 to 2) 3 developers
 - * Requirements finalization
 - * Initial SDK setup
 - * SDK - Integrating Nft.storage to store metadata and file
 - * SDK - Integrating HTS to issue NFT
 - * Budget requested: \$20,000
- M2 (Week 3) 2 developers
 - * SDK - Support for checking status of NFTs
 - * SDK - Support for HEX extension
 - * SDK Testing
 - * Budget requested: \$15,000
- M3 (Week 4)
 - * 2 developers

- * Demo Marketplace Application setup
 - * Front-end for the demo marketplace application
 - * Integrating the sdk with Front-end application
 - * Demo marketplace Application Testing
 - * Budget requested: \$20,000
- M4 (Week 5) 2 Developers
- * Regression testing
 - * Bug fixes and Improvements
 - * Deploying Demo Application
 - * Budget requested: \$20,000

Total Budget Requested

\$75,000

Maintenance and Upgrade Plans

HEX is responsible for coordinating the continuous maintenance of the DAPP components developed within the project, preserving at the same time their stability in terms of interface and behavior, so that higher-level frameworks and applications can rely on them.

Once a year the HEX team will produce a major release, characterized by a well defined interface and behavior for each of its components. Interface and behavior are allowed to change within a major release only in a backwards-compatible way.

Component releases are classified in major, minor, revision and emergency, based on the impact of the changes on the component interface and behavior.

Requests for Change will be managed adopting a priority-driven approach, so that the risk to compromise the stability of the software deployed in a production environment is minimized. Requests for Change will also be properly monitored across the different trackers adopted by the HEX team.

HEX is also responsible for coordinating the support to users of the DAPP components developed within the project.

Both the Software Maintenance and the User Support are monitored through Key Performance Indicators, outlined below -

*Automatic upgrades to the most up-to-date versions of the software, including major releases and patches.

*Early access to Beta versions and the opportunity to test and suggest new features before they are included in the final release.

*Premium technical support and prioritized incident management, including first response to your issues within 1 business day, and usually much faster than that.

*Special promotions and discounts.

Team

Contact Info

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Team Members

- Jim Gao
- Xavier Praveen
- Alex Peshevski
- Simon Jackson

Team Member LinkedIn Profiles

- <https://www.linkedin.com/in/jim-gao-a93369207/>
- <https://www.linkedin.com/in/xavierpraveen/>
- <https://www.linkedin.com/in/alzoo/>
- <https://www.linkedin.com/in/simon-jackson-72856aa3/>

Team Website

<https://myhex.io>

Relevant Experience

Involved with Hedera since 2018, the Hashgraph Exchange (HEX) team worked on world's first hashgraph-based DEX, and launched its alpha version during Hedera's Open Access (OA) on 9/16/2019. After the inception of Hedera's token service in Q1 of 2021, the HEX team completely revamped the design and architecture of its DEX, and won the third place in Hedera21 hackathon.

We are among the first teams in the Hashgraph ecosystem to:

- Enable users to create an account on Hedera mainnet without going through KYC;
- Enable users to create, add, send and receive HTS based tokens (both fungible and non-fungible) through their Hedera accounts.
- Swap between hbars and HTS tokens
- Implementing the bridge between Hedera and the Ethereum network
- Enabling hbar custody solution by implementing a functional hardware wallet

Team code repositories

<https://github.com/Hashgraph-Exchange/NFT-Browser>

Additional Information

You can try out the latest version of the Chrome based DEX at

<https://chrome.google.com/webstore/detail/hex/kiaflfdgfehdlghbhkimfmgdkmccoekm/related?hl=en>