# Crust Grant Proposal

\* \*\*Project Name:\*\* FILE\_SHARE\_APP

\* \*\*Team Name:\*\* DAPP LIBRARY

\* \*\*Payment Address:\*\* 0x5ed382fdf90c4b9f3acb65fcce35e63dff5907ca

\* \*\*Receivable Token:\*\* USDT (need a CRU address for CRU token)

> ⚠️ \*The combination of your GitHub account submitting the application and the payment address above will be your unique identifier during the program. Please keep them safe.\*

> ⚠️ \*When you submit an application for a Grant，You confirm that you have read these Terms and Conditions carefully and that you agree to be bound by them.\*

### Overview

Please provide the following:

\* A project name

FILE\_SHARE\_APP

\* A brief description of your project.

People can sell their digital file with this app, no center server is used, and no one can stop it. Also there are several issues should be resolved carefully, especially in the encryption step to make sure the digital product can be decrypted correctly only after payed

We already developed an demo that has implemented most of the functions listed below.

\* An indication of how your project relates to / integrates into Crust.

Using CRU to do the file manage part

\* An indication of why your team is interested in creating this project.

We always want to do something new, cool, user-friendly with the new tool in blockchain. File sharing or trading is one of this that probably comes true in the near future.

### Project Details

key steps: provider part

copy ipfs binary to a directory in android app

start ipfs daemon, with option --enable-pubsub-experiment

add a file (take a picture for example), the hash of the file, set the description of the file, and the number of token should be payed to get the file, save this bean in the sqlite database . you may put more files.

add the json file for these files generated from sqlite database, get the hash of this json file

name publish the hash of json file, so that others can find it by the hash of the node

pubsub the node with the topic “PUBLISH\_NODE”, the data is "NAMEHASH:#nodehash;TOTAL\_PRICE:100;PUBLISH\_WALLET\_ADDRESS:#walletAddress; others who subscribe the topic will get the hash of the node

consumer part:

sub the topic “PUBLISH\_NODE”, get the hash of the node, the total price of the node, and the wallet address, save them into local database

choose one node, load the contract of the TOKEN used, get the PUBLISH\_WALLET\_ADDRESS, your wallet address, and how much token, click to pay it, which will run the smart contract to transfer the token from your wallet address to the PUBLISH\_WALLET\_ADDRESS.

after pay for it, get the json file

show the images listed in the json file.

People can sell their digital file with this app, no center server is used, and no one can stop it. Also there are several issues should be resolved carefully, especially in the encryption step to make sure the digital product can be decrypted correctly only after payed.

https://github.com/rogerlzp/IPFS\_Android this has been implemented, We are trying to migrate this to CRUST. There are several key steps should be implemented.

1. Java api to call curst commands and join the crust network  
2. wallet that supports crust/Polkadot using java api

3. Product for file management or selling.  
4. Smart contract for the file sharing or trading

### Ecosystem Fit

## Team

### Team members

\* Name of team leader

Lizhengping

\* Names of team members

There are roles including product manager, UI, backend, frontend, smart contract developer, and some miners focus on filecoin.

### Contact

\* \*\*Contact Name:\*\* Full name of the contact person in your team

lizhengping

\* \*\*Contact Email:\*\* Contact email (e.g. dean@crust.network)

17256049@qq.com

\* \*\*Website:\*\*

### Legal Structure

\* \*\*Registered Address:\*\* Address of your registered legal entity, if available. Please keep it in a single line.

Shanghai China

\* \*\*Registered Legal Entity:\*\* Name of your registered legal entity, if available.

Shanghai China

### Team's experience

The development team are colleagues from a internet company. We have a strong consutant team.

### Team Code Repos

https://github.com/rogerlzp/Crust-Grants-Program

### Team LinkedIn Profiles

https://www.linkedin.com/in/zhengping-li-89507315/

## Development Roadmap

1. Java api to call curst commands and join the crust network  
2. wallet that supports crust/Polkadot using java api

3. Product for file management or selling.  
4. Smart contract for the file sharing or trading

### Overview

\* \*\*Total Estimated Duration:\*\* Duration of the whole project (e.g. 2 months)

\* \*\*Full-Time Equivalent (FTE):\*\* Required workload of a full-time employee for the whole project (see [Wikipedia](https://en.wikipedia.org/wiki/Full-time\_equivalent)) (e.g. 2 FTE)

\* \*\*Total Costs:\*\* Amount of payment in USD for the whole project. The total amount of funding \*needs to be below $30k\* (e.g. 12,000 USD)

### Milestone 1 Example — Implement Crust Order Modules

\* \*\*Estimated Duration:\*\* 1 month

\* \*\*FTE:\*\* 2

\* \*\*Costs:\*\* 8,000 USD

| Number | Deliverable | Specification |

| -----: | ----------- | ------------- |

| 0a. | License | Apache 2.0 / MIT / Unlicense |

| 0b. | Documentation | We will provide both inline documentation of the code and a basic tutorial that explains how a user can (for example) spin up one of our Crust nodes. Once the node is up, it will be possible to send test transactions that will show how the new functionality works. |

| 0c. | Testing Guide | Core functions will be fully covered by unit tests to ensure functionality and robustness. In the guide, we will describe how to run these tests. |

| 1. | Crust module: X | We will create a Crust module that will... (Please list the functionality that will be coded for the first milestone) |

| 2. | Crust module: Y | We will create a Crust module that will... |

| 3. | Crust module: Z | We will create a Crust module that will... |

### Milestone 2 Example — Additional features

\* \*\*Estimated Duration:\*\* 1 month

\* \*\*FTE:\*\* 1

\* \*\*Costs:\*\* 4,000 USD

...

## Future Plans

1. set a homepage for the current team which will focus on dapp development

2. develop sdks needed

3. implement the product

## Additional Information

Any additional information that you think is relevant to this application that hasn't already been included.

Possible additional information to include:

\* Are there are any teams who have already contributed (financially) to your project?

\* Do you have a community of users or open-source developers who are contributing to your project? Yeah, several friend as miners.