Documentation of the Gradido Platform

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General considerations

Simple operation for everyone

Use must be as simple as PayPal, i.e. email address or username. Therefore private keys must be stored encrypted in the login server.

Avoiding multiple creation

The Active Basic Income is created by payments to the community. This requires a manageable size of the communities (called "groups" in the source code). A community member must credibly prove the hours he or she has worked. Since the lifetime is limited, multiple creation is less critical with the active basic income than for example with an unconditional basic income.

When Gradido becomes the official currency, identity is ensured by the regional or local authorities

In addition, the development of a global digital identity is being driven forward by both the public and private sectors. That is not our task.

Open Source only later

At a later point in time the code is to be disclosed. In order to make the initial development as easy and undisturbed as possible, we are initially developing in a closed environment.

Architecture

Community Server

We aim for a decentralized network of communities, from small communities (a few 100 users) to very large communities. To make it easy for the small communities, the community server should also run on simple webspace. Therefore it does not contain any particularly security-relevant functions and is developed in PHP. The community admins do not need high qualifications.

To send the transactions themselves via Hedera, the community server would need the php module for grpc. This would make it more difficult for users to install the community server on a simple web space.

Login Server

Several communities can access one login server. Besides the login, it also fulfills other complex and security-relevant functions, e.g.

- Storage of private keys
- Signing and routing transactions is the main function of the login server.

For security and performance reasons the login server is developed in C++.