DONAU: Tax Deductable Donations with Privacy

Donation receipts can contain sensitive data. Donating anonymously and still being able to legally deduct the donated amount from the taxes may prove difficult. The Donau aims to solve these problems by using cryptographic blinded messages to protect the privacy of the donor. By using the Donau, it is cryptographically impossible to mislead the tax authorities with donations.

Introduction

To be able to donate to a charity and deduct that donation from taxes, it is often required to provide evidence. The donor would have to present said evidence in form of a donation receipt which would include information about both the donor and charity. The donor may want to keep this information private and only provide a receipt that proves that a certain amount was indeed donated to a recognized charity.

The main goals are to protect the donor's privacy, to prevent donation fraud and to simplify the verification process. The Donau was developed to achieve all of these goals. The Donau is written in C and a supplementary service of GNU Taler while still being payment system independent. The Donau is expected to be run and maintained by the local tax authority.

Implementation

The Donau consists of a REST API and the corresponding backend implementation. The REST API provides endpoints for the charities and donors as well as for the administrators of the Donau. The Donau is able to receive and verify donation receipts all while anonymizing the data and preserving the privacy of the donor. It further simplifies verification for the tax authority and prevents donation fraud by using signatures and keeping track of donations and charities.

The main API endpoints handle requests to:
- manage charities - used by Donau admin
- issue receipts - used by the charity for received donations
- submit receipts - used by the donor for summarizing all donations throughout the year in a single donation statement

The donor submits the donation statement as a QR code to the tax authority in order to claim the tax reduction.

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More infos...
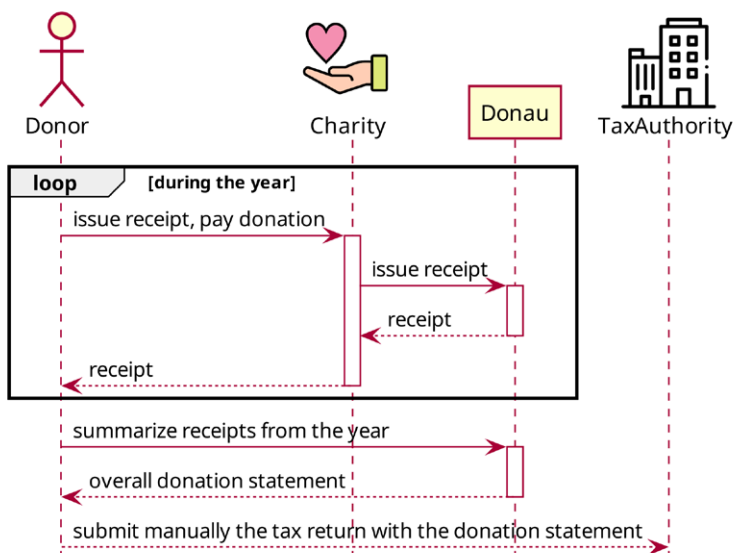
Sequence Diagram of the Donau System