xxRFP-2022-013

Cryptocurrency Backend for the xx messenger

This xx foundation request for proposals will fund the creation of the backend to manage the sending and receiving of cryptocurrency in the xx messenger over cMix. The backend will facilitate the transfer of cryptocurrency via external, user-chosen wallets described in xxRFP-2022-012.

The xx foundation is offering a competitive bidding process to complete this work, with independently compensated phases. The selection process will analyze each phase individually according to the response contents, the proposed compensation, and the proposed final deliverable dates and contents. Proposers are expected to propose for all phases.

Requirements

The cryptocurrency backend system allows clients to send payment requests to each other, submit them to arbitrary blocks, and listen on the xx network for the results. Build a system that connects to a node and interacts with the provided API to receive transactions and handle the receipts of data. All requests, transfers, and signatures are transmitted through the xx network to maintain privacy and anonymity.

Some systems have to sign transactions and some do not, depending on their use. Proposals must address whether they sign transactions and the mechanisms of doing so.

The API details are not yet available. This RFP cannot be started until they are released.

Architecture

The architecture of the system is defined in the Architecture section of Payments Mechanism for xx messenger.

Phases

You may propose your own phases, but the following five phases are desired:

Phase 1: Proof of Concept—Implement the basic version of your proposed design and submit a final design for the server-side functionalities. This should include final versions of any cryptographic primitives and fully explained versions of all data

structures and sub-protocols, as well as discussions transactions signatures (or lack of).

Phase 2: Software

- **Server-Side Software**—Build a server client that can handle payment requests, interface with the API, and handle receipts.

- **Command-Line Tools**—Client-side command-line tool that allows basic sending and receiving of payments that fully exercises your proposed system without a user interface.

Submission Instructions

Proposers should submit their proposals, in English, to the following website:

- FULL ADDRESS HERE

Note that proposals are divided into two parts: An anonymized technical proposal and a staffing proposal. The technical proposal will be posted online and should not contain any identifying information about your organization or staff. The staffing proposal will contain resumes and additional evidence for why you and your team are qualified to do the work you propose.