

The Stamp Protocol

Secure Trustless Anonymous Micropayment Protocol (S.T.A.M.P.)

Executive summary version: 0.1 (Draft)

Date: September 2025

Author: Joe, Stamp Protocol

Contact: joe@stampprotocol.org

On Solana today, every action—trading, messaging, or calling an API—ties back to a wallet. That wallet acts like an ID tag: it exposes identity, usage patterns, and metadata even if a fresh account is created. Off-chain billing avoids this but reintroduces trust and manipulation risks. The consequence is simple: there is no way to pay per use, privately, at scale.

The Stamp Protocol (S.T.A.M.P.) solves this by breaking the link between funding and usage. Users prepay once and receive a batch of one-time credits. Before spending, these credits can be converted into fresh ones through zero-knowledge proofs, ensuring they are valid but unlinkable to the original payer. From that point, credits can be spent or transferred freely, circulating like bearer notes of value.

The protocol combines:

- **Zero-knowledge proofs** to guarantee every credit is valid and prepaid.
- **Relayers** to execute services instantly, front costs, and anchor data on-chain.
- **Watchers** to audit redemptions and slash fraud within a 30-day horizon.

This design guarantees fast usage, durable accountability, and unlinkable privacy—while rewarding every participant fairly.

S.T.A.M.P. turns Solana into the first high-throughput chain where value moves with the speed of finance, but with the privacy of stamps—making every service, from trading to messaging, instantly monetizable without ever exposing who's paying.