

SERVICE INCENTIVISATION POC DEMO

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TL;DR

- Incentivised Lightpush for Waku sustainability
- Eligibility and reputation mechanisms
- Step towards decentralised service marketplace

WAKU LIGHT PROTOCOLS

Waku supports edge nodes via light protocol services:

- Lightpush (send) - focus of this demo
- Store (retrieve history)
- Filter (subscribe)

WHY INCENTIVISE?

Services are currently provided altruistically.

Waku is protected with ZK-based rate limiting (RLN).

Serving Lightpush requests requires RLN membership.

Incentivisation is key to long-term Waku sustainability.

INTRODUCING SERVICE INCENTIVISATION

This PoC brings incentives to Lightpush.

Lightpush is the simplest light protocol to incentivise.

A client asks, a service node publishes on its behalf.

POC: ELIGIBILITY

Eligibility is checked by service node:

- valid payment txid on Linea Sepolia
- correct amount and destination
- not reused (prevents double spend)

POC: REPUTATION

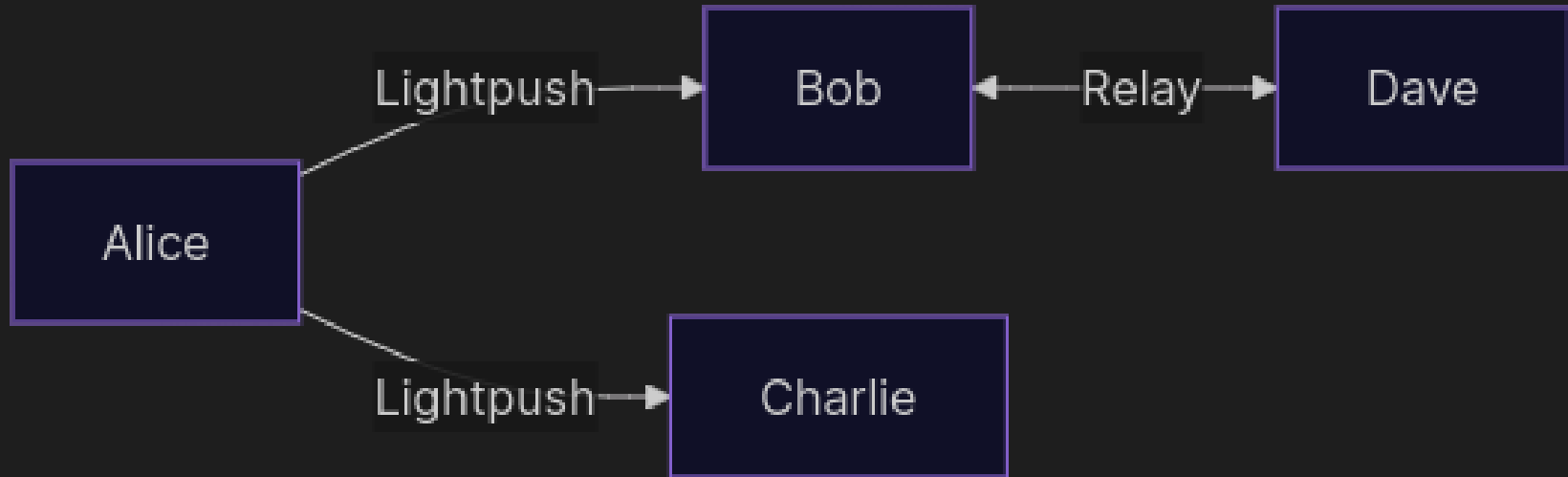
Reputation is tracked by edge node:

- neutral initially
- good if request fulfilled
- bad if eligible request fails

ASSUMPTIONS

- Price and payment address agreed on off-band
- Each request is paid for separately
- Payments made in Linea Sepolia ETH

DEMO NETWORK TOPOLOGY



DEMO: TEST CASES (1/2)

1. Ineligible Request

Alice sends invalid request to Charlie.
Charlie checks eligibility and rejects it.

2. Eligible but Failed

Alice sends valid request to Charlie.
Charlie fails to fulfil; Alice marks Charlie as "bad".

DEMO: TEST CASES (2/2)

3. Eligible and Fulfilled

Alice connects to Bob (neutral reputation).

Bob fulfils request; Alice marks Bob as "good".

4. Double-Spend Attempt

Alice reuses previous txid.

Bob detects reuse and rejects the request.

TOWARDS A WAKU SERVICE MARKETPLACE

This PoC lays early groundwork for a decentralised
Waku service marketplace.

GET INVOLVED

Try the PoC (check out this nwaku branch):

`feat/service-incentivization-poc`

Vac Forum thread: [Service Incentivisation MVP](#)

Waku Blog Post: [\[to be published soon\]](#)

