



# Neo Solution Design Specs Report

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## Objective

Document and report to GrantShares DAO the overall requirements, the architecture of smart contracts, and how they interact with the [voxiberate.com](https://voxiberate.com) front-end for the Neo Dapp development project funded by a grant by GrantShares.

## Success metrics

<b>Goal</b>	<b>Metric</b>
Implement Neo wallet integration	Users can register as a Web3 user. Users can login with NeoLine wallet.
Create DAO Communities	Facilitators can register as a Web3 user, then create a DAO Community for Neo. Facilitators can invite Citizens with an invite link.
DAO Business model	Facilitators can pay with Gas to access the platform and set Rewards.
Reward distribution	Define the Reward Distribution Criteria. Facilitators can fund Reward Distribution Smart Contract to escrow rewards and initiate Voxiberations. Users that contribute to a positive Voxiberation are incentivised with Gas Rewards after a successful Voxiberation. Gas Rewards are refunded to Facilitator if Voxiberation fails.



History of DAO  
Voxiberations and reward  
distribution

Users can access a blockchain derived history of Voxiberations they participated in, including the rewards distributed/received.

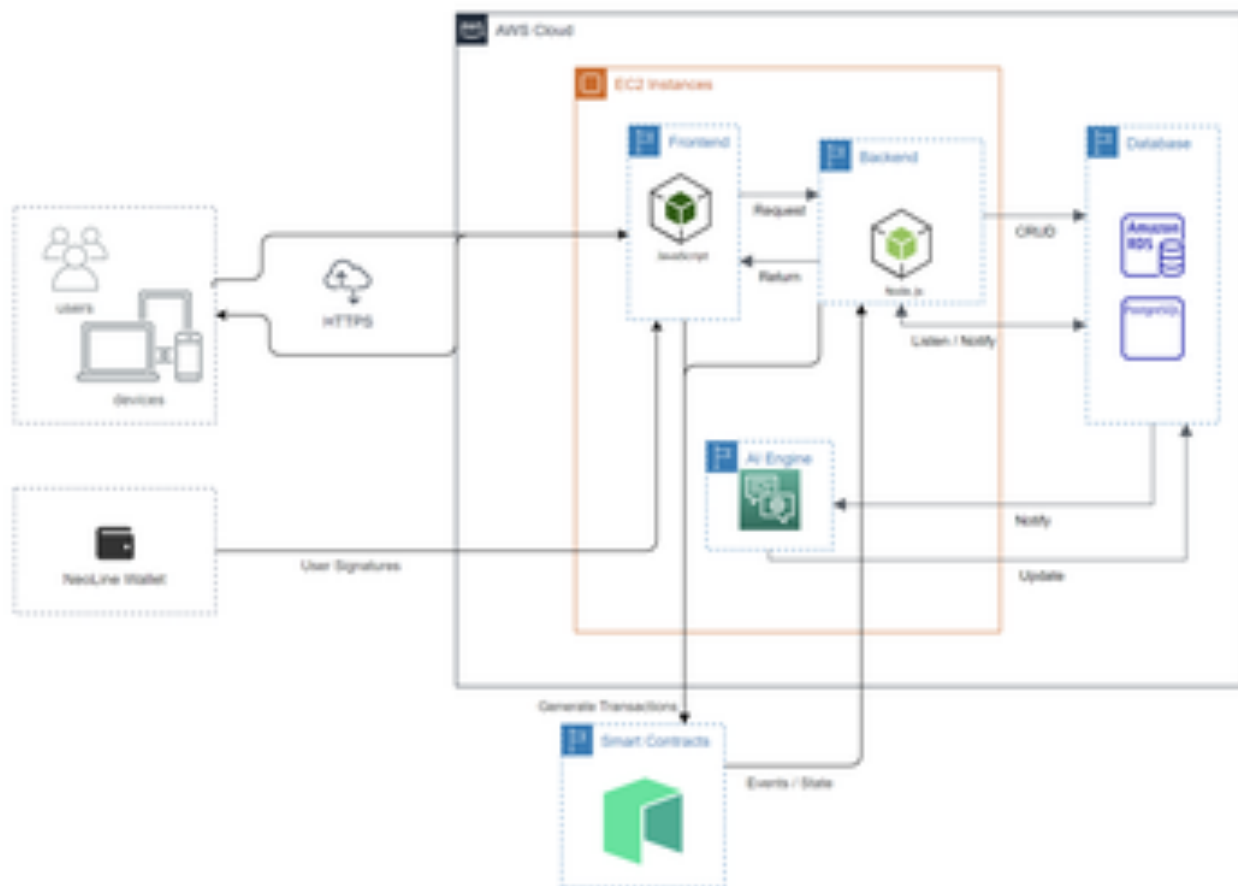
## 🤔 Assumptions

Users know how to operate a NeoLine wallet and already have NEO and Gas tokens and an interest in DAO governance on Neo.

We will not handle any KYC, at least for now.

Facilitators and Citizens may have privacy concerns and may object to recording sensitive information to the blockchain.

## 📄 System Overview





## User interaction and design

Process:

1. The Facilitator signs up with an email and password
2. The Facilitator from a DAO selects “Crypto”, connects the NeoLine wallet, and pays the subscription fee (in Gas)

### Select your plan

You can pay in USD using your credit card (select “Card”), or you can pay in Gas using your wallet (select “Crypto”)

Card **Crypto**

Plan	Frequency	Price	Includes
<b>Trial</b>	one-time payment	<b>50 Gas</b>	<ul style="list-style-type: none"><li>✓ 1 community up to 50 citizens</li><li>✓ 1 Voxiberation</li><li>✓ Distribute awards to citizens</li><li>✓ Analytics</li></ul>
<b>Jury</b>	monthly	<b>75 Gas</b>	<ul style="list-style-type: none"><li>✓ 1 community up to 50 citizens</li><li>✓ 2 Voxiberations per month</li><li>✓ Distribute awards to citizens</li><li>✓ Analytics</li></ul>
<b>Assembly</b>	monthly	<b>100 Gas</b>	<ul style="list-style-type: none"><li>✓ 1 community up to 50 citizens</li><li>✓ Unlimited Voxiberations</li><li>✓ Distribute awards to citizens</li><li>✓ Analytics</li></ul>
<b>City</b>	monthly	<b>250 Gas</b>	<ul style="list-style-type: none"><li>✓ Unlimited communities up to 200 citizens</li><li>✓ Unlimited Voxiberations</li><li>✓ Distribute awards to citizens</li><li>✓ Analytics</li></ul>

During the setup of an Ask, the Facilitator must pay Gas to an Escrow and Reward Distribution Smart Contract. This must be in place before the Ask can be Published



- ✓ community details
- ✓ invite members
- ✓ set up Ask
- ✓ proposal
- ✓ learning materials
- rewards

## Reward your citizens

Total reward amount

Participants ("Citizens") to a Voxiberation are awarded according to the following rules:

- Participants whose comments get voted to the top five comments earn 10% each of the Reward set up by the Facilitator.
- All participants earn an equal share from a pool representing 50% of the Reward set by the Facilitator, unless they have used swear words in their comments in which case they earn 0 rewards (their comments are also dismissed and excluded from the voxiberation).

CONNECT YOUR WALLET

SKIP

The Facilitator can add Citizens by importing a CSV file or generate a link they can share to anyone who wants to be a part of the Community

**< Manage community**

First Name	Last Name	Email	Invitation date	Status
Jocelyn	Stanton	jocelyn@community.com	24/02/2022	● pending
Skylar	Levin	skylar@community.com	24/02/2022	● active
Brandon	Torff	brandon@community.com	24/02/2022	● pending
Cooper	Korsgaard	cooper@community.com	24/02/2022	● active
Abram	Lipshutz	abram@community.com	24/02/2022	● active
Gustavo	Carder	gustavo@community.com	24/02/2022	● pending
Jakob	Lubin	jakob@community.com	24/02/2022	● pending

UPLOAD CSV FILE

SHARE LINK

3. Citizens will have to connect their NeoLine Wallets when they onboard, on top of making accounts with email and password
4. “History” (what we used to call “Wallet”) must show past transactions, and Gas earned, for both Facilitators and Citizens



## My history



Communities

### Transactions

Community	Voxiberation	Date	Sum	Action
Regional Assembly	<b>Better Policing</b>	20.04.2022	+5 NEO	Voxiberation participation
Regional Assembly	<b>Better Policing</b>	20.04.2022	-100 NEO	Payment of rewards
Regional Assembly	<b>Better Policing</b>	20.04.2022	+5 NEO	Voxiberation participation
Regional Assembly	<b>Better Policing</b>	20.04.2022	+5 NEO	Voxiberation participation
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Regional Assembly	<b>Better Policing</b>	20.04.2022	+5 NEO	Voxiberation participation

5. If a Facilitator wants to create another Community or additional Voxiberations, they will return to the “Select your Plan” page and repeat steps 2 and 3 above
6. Only the Trial option will be made available. The other four options will be disabled

## Solution Architecture

### Hardware

The web application will still be hosted on AWS.

The AI Engine will be moved over to a GPU instance on AWS.

### Smart Contracts

Interactions/invocations

1. Initiate Voxiberation and reserve funds for Escrow and Reward Distribution
2. Terminate Voxiberation to return all funds if the Voxiberation fails, initiated automatically in the backend
3. Complete Voxiberation and distribute rewards to eligible wallets that fit the Reward Distribution Criteria



## **\Reward Distribution Criteria**

1. Citizens that (1) submit a valid comment, (2) participate in all the voting phases. and (3) have a comment in the final ranking gets 50% of the rewards (5 Citizens get 10% each)
2. Citizens that (1) submit a valid comment and (2) participate in all the voting phases gets the remaining 50% of the rewards, equally distributed
3. No rewards for citizens that have used swear words in their comments

## **New Features**

1. Neo Wallet Adapter
  1. Connect wallet: Register by Citizen/Facilitator
  2. Transaction: Initiate Voxiberation and deposit Rewards, by Facilitator
  3. Transaction: Terminate Voxiberation, by Backend
  4. Transaction: Complete Voxiberation, by Backend
2. The Facilitator register normal Community or Web3 Community (Neo)
3. The Facilitator generates invite links for Web3 Citizens, so they can join a Community
4. The Facilitator can disable invite links
5. Show Voxiberation History per Citizen/Facilitator
6. Show Reward History per Citizen/Facilitator



## Solution Diagrams

