

[This document is replaced with The United Humans investment offer. See: <https://lists.w3.org/Archives/Public/public-credentials/2018Dec/0057.html> and <https://github.com/WebOfTrustInfo/rwot7/blob/master/topics-and-advance-readings/united-humans.md>]

A proposal to cooperate on the development and maintenance of Validbook.

This document includes a short description of Validbook definitions, Validbook services, Validbook-specific terms, Validbook roadmap and current state, Validbook investment offers, tenders and bounties, Validbook policies and guidelines.

Validbook development version available at <http://futura1x.validbook.org/>. Download and use the following key to login as the main test user “Jimbo Fry” [jimbo-keystore-file](#). Password to keystore file - “123456789”. After login go manually to the home page. Use Chrome browser.

Definition: Validbook is a set of core cooperation services.

Validbook slogan: Do important stuff with confidence.

Validbook mission: To improve cooperation between things, people and virtual entities by making it more transparent and reliable and to support inalienable human rights among which are the right for Self-Sovereign Identity, Life, Liberty and the pursuit of Happiness.

Validbook services

- Identity Service – a service to create and manage self-sovereign identities.
- Statements Service – a service to create digital documents that include cryptographically verifiable information.
- Wallet Service – a service to send and receive Kudos and other tokens.
- Arbitration Service – a service to arbitrate SURLHIs (Statement of Unique representation of Living Human Individual on Validbook).
- Mail Service – an email service.
- Social Networking Service – a low engaging, non-addictive social networking service focused on capturing full range of human personality and experiences. It provides universal tools for information dissemination/signalling and screening activities, as well as tools to store and structure knowledge. It also attempts to provide easy-to-use privacy controls to enable real-world-like privacy and veracity gradients of information dissemination and consumption.

Validbook-specific terms

- *Validbook Statements* – digital statements that include cryptographically verifiable information. VB statements are made of 2 layers – presentation layer (HTML, SVG, etc) and technical layer (JSON). Technical layer is based on [Verifiable Credential standard](#). Examples of Validbook Statements: [Wedding Photography Contract](#); [Certificate of Completion](#) (sign examples using Jimbo Fry's key to see cryptographically verifiable information). Templates of standard Validbook Statements available [here](#).

- *Validbook Identity* – a Self-Sovereign Identity. It can be created and managed via Validbook Identity Service, by creating or updating Root Identity Statement.
- *Root Identity Statement* – a Validbook Statement that describes identity (decentralized identifier, keys). Root Identity Statement is based on [DID specification](#).

Note, Validbook uses a user-selected strings (e.g. “realJimboFry777”) for Decentralized Identifiers (DIDs). Although, there are objections for a such way of generating DIDs, it is important to provide for people an ability to select their own permanent, memorable decentralized identifiers. Validbook Identity Service works as a resolver for DID Documents.

- *SURLHI* – Statement of Unique Representation of Living Human Individual.
- *Endorsement of SURLHI* – a statement that endorses claim made in SURLHI. Endorsements of SURLHI can be made only by identities that made SURLHI themselves. Endorsement of SURLHI must be mutual to be deemed as valid and be shown on Endorsers Ego Graph on Validbook Identity Service.
- *Endorsers* – identities that mutually endorsed each other’s SURLHIs and are shown on each other’s Endorsers Ego Graphs.
- *Endorsers graph* – an undirected graph, that visualizes the graph of SURLHI endorsers (see background on Validbook homepage - <http://futurama1x.validbook.org/> – try to zoom in and zoom out).
- *Endorsers Ego Graph* - endorsers graph presented from the perspective of one identity (Ego Node). It is broken down by levels from the perspective of Ego Node: first level - endorsers of Ego Node’s SURLHI, 2nd level - endorsers of 1st level endorsers and so on. It allows arbiters to evaluate SURLHI’s validity (see - [Jimbo Fry’s identity page](#))
- *SURLHI arbitration* – a process during which arbiter evaluates validity of **a randomly selected** SURLHI ([details of SURLHI Arbitration process](#)). To evaluate validity of SURLHI arbiter reviews related to SURLHI statements and *Ego Graph*. As per arbiter’s decision SURLHI may get status - “Valid”. The main part of SURLHI arbitration will be the analysis of *Ego Graph* - estimation of number of paths between arbitrated identity and Giant Component, evaluation of shortest paths to the known trustworthy identities with valid SURLHI.
- *Arbiter* – an identity that performs SURLHI arbitration and makes decision about its validity. Any identity can be an arbiter of SURLHI. Arbiter’s decision may have or not have a binding power. Hence, there are Recommending Arbiters and Binding Arbiters. Recommending Arbiter that has good reputation and receives approvals from existing Binding Arbiters becomes Binding Arbiter (*similar to Wikipedia Admin selection process*).
- *Giant component of identities with valid SURLHIs* – the largest connected component in endorsers graph. Number of connections between identity and *Giant Component* will be a good indicator of the validity of identity’s SURLHI.
- *Kudos* - a Validbook token. 1 KDS is generated per 1 living human daily. World human population is estimated for the next 100 years based on [2017 UN population prospects](#). See analysis [here](#).

For example, in 2018 total daily KDS production = ~7.5 Bln; in 2118 = ~11.3 Bln.

Total KDS production for the next 100 year = 370,392,913,823,618 KDS = ~370 Trn.

Validbook Foundational Fund = 10% of 100 years of KDS production =

37,039,291,382,362 KDS = ~37 Trn

Total supply of KDS for the next 100 years = 407,432,205,205,980 KDS = ~ 407 Trn.

After first 100 years of Kudos distribution in order to ensure equal opportunity for the next generations amount of Kudos generated per living human individual may increase. To be decided closer to the end of the first 100 years of Kudos distribution.

- *Kudos Distribution* – total daily production of Kudos is distributed **in equal amounts** among identities with valid SURLHI. Amount of KDS per identity with valid SURLHI is calculated using the following formula:

Daily KDS per identity with valid SURLHI = World Human Population / Number of identities with valid SURLHI

Distribution of all Kudos only among identities with valid SURLHI, creates incentives for people to participate in Validbook, provide good quality proofs of SURLHI validity. This will lead to the creation of *Giant Component* of identities with valid SURLHIs.

- *Validbook Foundation* – is a not-for-profit organization, to be organized and governed based on the example of [Wikimedia Foundation](#) and The United Nations. The main job of Validbook Foundation is to
 - maintain Validbook operations
 - develop Validbook services when internal development is more efficient than development via external tenders
 - guide Validbook development via external tenders
- *Validbook Foundation Staff* – internal employees of Validbook Foundation. Validbook Foundation staff to be organized and paid based on the example of [UN Salaries guidelines](#).

Validbook funding

- KDS production for the next 100 year = 370,392,913,823,618 KDS (based on analysis of UN world population forecast – [1](#), [2](#))
- Validbook Foundational Fund = 10% of 100 years of KDS production = 37,039,291,382,362 KDS
- Total supply of KDS for the next 100 years = 407,432,205,205,980 KDS
- Weekly ICOs by Validbook Foundation – selling a part of KDS from Validbook Foundational Fund during the first 10 years of work of Validbook Foundation. Proceedings of weekly ICOs should fund Validbook Foundation operations for at least the first 10 years. See [estimates of KDS price](#).
- Monetary value gained from weekly ICO to be allocated between internal Validbook Foundation operational needs and the winners of external tenders and bounties.
- After Validbook Foundational fund is spent, further financing should come from default transactions fee in Validbook Wallet service (free to opt-out, usage to be incentivised by the lottery; security perception of Validbook Wallet brand; gaining goodwill associated with contribution to Validbook Services), other potential income from auxiliary services (e.g. root certificate authority services), contributions from governments.

Validbook roadmap and current state

Roadmap

- Validbook Services to be able to serve 10 mln users within 1 year after pre-ICO investment.
- First weekly Kudos ICO to be performed 1 year after pre-ICO investment.
- Initially, because of simplicity of implementation, Kudos to be implemented as ERC20 Ethereum tokens. Probably to be converted to Kudos in the native Validbook blockchain.
- 1-2 year after the first Kudos ICO the distribution of KDS to identities with valid SURLHI should be started (exact date depends on the availability of lighting technology or high performance distributed ledger technology required for instant and cheap distribution of KDS). At this time Validbook Services should be able to serve 100-300 mln users.
- After the start of the distribution of Kudos grow Validbook Services as per demand potentially to all internet users.
- Within 10 years after the first weekly ICO all Validbook Services should be end-to-end encrypted. Whenever applicable and reasonable data and logic should be hosted locally or in decentralized way. Kudos, Root Identity Statements, other statements and data if needed should be stored in customized for Validbook needs permissionless blockchain/s. For clarity, the storage may be done on general purpose blockchains (e.g. Ethereum).

Current State

- Proof of the concept implemented using conventional centralized web technologies. See POC at: <http://futura1x.validbook.org/>. Please bear in mind that this is a development version, hence half of the features does not work and another half works half of the time, but it should be enough to demonstrate and prove the concept.
- All Validbook Services codebase is open source. It is available at: [Validbook-Services-Frontend](#); [Validbook-Services-Backend](#).
- Digital signatures required for Validbook Statements and Identity are implemented using Ethereum cryptographical tools and algorithms (web3.js, Geth; keccak-256, secp256k1).
- No data is currently end-to-end encrypted.

Validbook Investment Offers, Tenders and Bounties

Investment Offers

- Invest into pre-ICO Kudos to finance operations of Validbook Foundation before the start of its weekly ICOs.

Investment amount: 200K - 1M USD for 70-280B KDS (1-4 weeks of Total Kudos Production) See [estimates of KDS price](#).

Investment Conditions:

- Invested amount is going to be spent on the development of production ready implementation of Validbook Services, mainly on salaries of Validbook Foundation staff and other operational expenditures (office rent, servers).

- Initially Validbook Foundation staff to be located in Ukraine. Staff salaries - 2-5K USD per employee of middle to senior level of experience per month (includes taxes, office, equipment and other cost). After the start of ICOs Validbook Foundation staff to be paid as per UN Salaries guidelines.
- Initial staff required to complete minimal production ready version of Validbook Services, prepare and execute first Validbook Weekly ICOs:
 - 1-3 backend developers
 - 1-3 frontend developers
 - 1-2 Ethereum, blockchain developers
 - 1-3 QAs
 - 0.5-1 UX/graphic designer
 - 1-2 DevOps engineers
 - 1 Chief Maintainer (Project Manager)
- First Weekly Kudos ICO to be performed 1 year after the investment.
- Kudos ICOs to be performed weekly.
- 1% from the first 10 weekly ICOs, but not less than 220,000 USD to be paid to the initial investor who provided to Bohdan Andriyiv 20.000 USD to support the development of Validbook POC (to be paid in KDS or in USD as per investor's choice).

Tenders

The below are outline of the possible tenders and bounties. The exact tenders and bounties and their terms and conditions to be published later as per development needs. Tenders to be used when external development is more effective than development done by Validbook Foundation staff.

- Design and develop Wallet Service (based on MyEtherWallet, Metamask, etc).
KDS to be awarded = TBD
- Develop specifications and implementation to store VB statements in blockchain.
First of all "Root Identity Statements" (DID Documents).
KDS to be awarded = TBD
- Organize and support communication, explanatory and community work (mailing list, forum, wiki, community weekly meetings). Guide discussions and development of policies and guidelines for Validbook governance (similar to [Wikipedia policies and guidelines](#)) for the first ? years of Validbook Foundation.
KDS to be awarded = ? should be done by the community only for free?
- Improve graph database to store and update data for Endorser Graphs that allows high performance graph analysis.
KDS to be awarded = TBD
- Design and develop Kudos smart contracts (KDS Creation, KDS Daily Calculation, KDS Daily Distribution).

KDS to be awarded = TBD

- Conduct security audit of Validbook services servers and devops processes.
KDS to be awarded = TBD
- Conduct security audit of Validbook services code. Kudos award will depend on kudos awarded to winners of security bounty (see security bounty below).
KDS to be awarded = TBD
- Conduct security audit of Validbook Kudos smart contracts. Kudos award will depend on kudos awarded to winners of security bounty (see security bounty below).
KDS to be awarded = TBD

Bounties

- Find and report security bug in Validbook services code. Kudos per bug will be awarded only if bug was not found in the security audit.
KDS to be awarded = TBD
- Find and report security bug in Validbook Kudos smart contracts. Kudos per bug will be awarded only if bug was not found in the security audit.
KDS to be awarded = TBD

Validbook governance policies and guidelines

- If you can work on incentives do not work on anything else.
- In good faith we trust.
- The room where it happens is transparent.
- Beware of the elephant in the brain.

Policies and guidelines to be extended similar to - [Wikipedia policies](#).

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