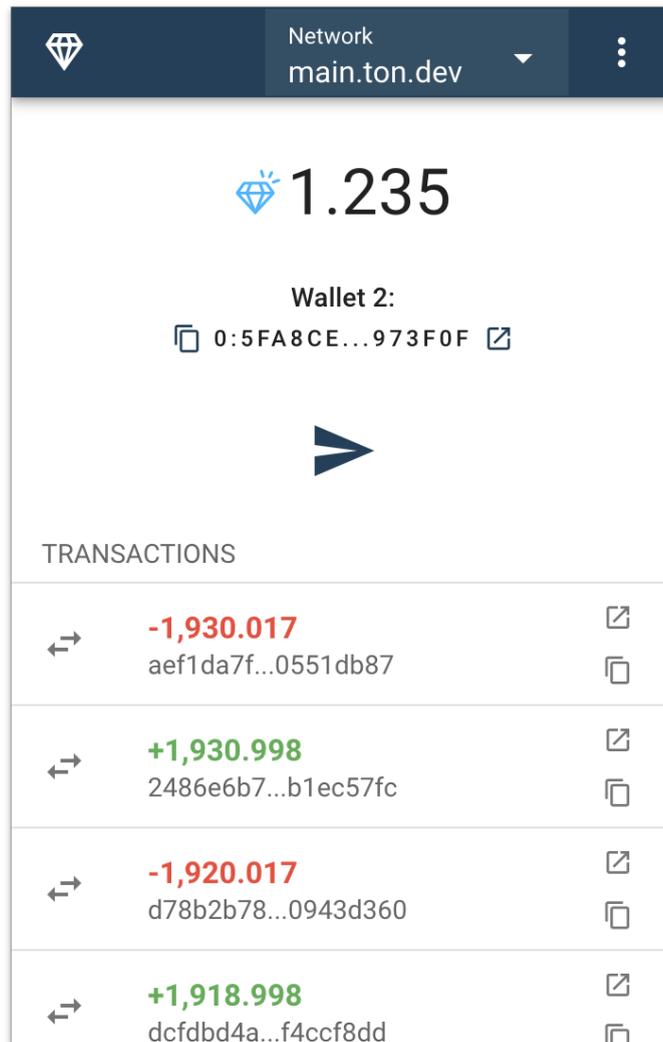


Free TON wallet as a Chrome extension. Stage 1.

by *extraTON*

Github: <https://github.com/extratone/extratone-extension/tree/contest-stage-1>

Any questions in telegram: @qwertys318



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1. Criteria comments

+ - Implemented

- - Not implemented

Comments by **green** or **yellow** font.

1.1 Hard criteria

- Generic
 - + English language of the interface;
 - + Support of Google Chrome;
 - + Absence of analytical trackers (Google Analytics, Yandex Metrika, etc.);
 - + Support of mainnet and testnet(s);
 - + On-chain activity history (transactions, messages, contract interactions, etc.);
 - + Any calls that require the user's keys must ask for the password input to decrypt them from the local storage.
- Wallet features
 - + Native support of any open-sourced non-custodial Free TON wallets, e.g.:

- **Original TON wallets 3** (Wallet v. 3);
- TON Labs' wallets (**SafeMultisig 1**, **SetCodeMultisig 1**);

Safe Multisig, Setcode Multisig, Surf.

- **+** Random seed phrase generation;
- **+** 12 or 24 words wallet initialization (based on wallet contract);
- **+** Wallet seed phrase backup and restoration;
- **+** Public and private keys generation, backup, and restoration;
- **+** Encrypted local key storage;
- **+** Password protection;
- **+** Support of sending a memo with messages (or encoded payload).

1.2 Soft criteria

- **+** Multilanguage support;

English, French, Spanish, Korean, Chinese, Russian.

- **+** The extension is published in the Chrome store;

Extension published in Chrome Store, but not as contest version. All contest changes will be implemented gradually in main version by the short time.

- **+** Support of additional browsers (Firefox, Brave, Edge, Safari, Opera);

Google Chrome, Firefox, Opera, Edge, Brave.

- **-** Browser notifications on events;

Browser notifications requires to pass data to 3d server. It's against extraTON principles.

- **+** Detailed and easily understandable charts explaining the architecture and business processes;

See below in this document

- **+** Brevity;
- **+** Mostly everyday English to facilitate understanding;
- **+** Readiness to participate in the implementation of the solution in the next stage;
- **+** Verifiable extension security along with the process to verify the equality of published version with source code.

See "Code verification" below in this document.

1.3 Additional Features

TON Rubies faucet with complex protection of draining.

2. Details

Supported browsers: Google Chrome, Firefox, Opera, Edge, Brave.

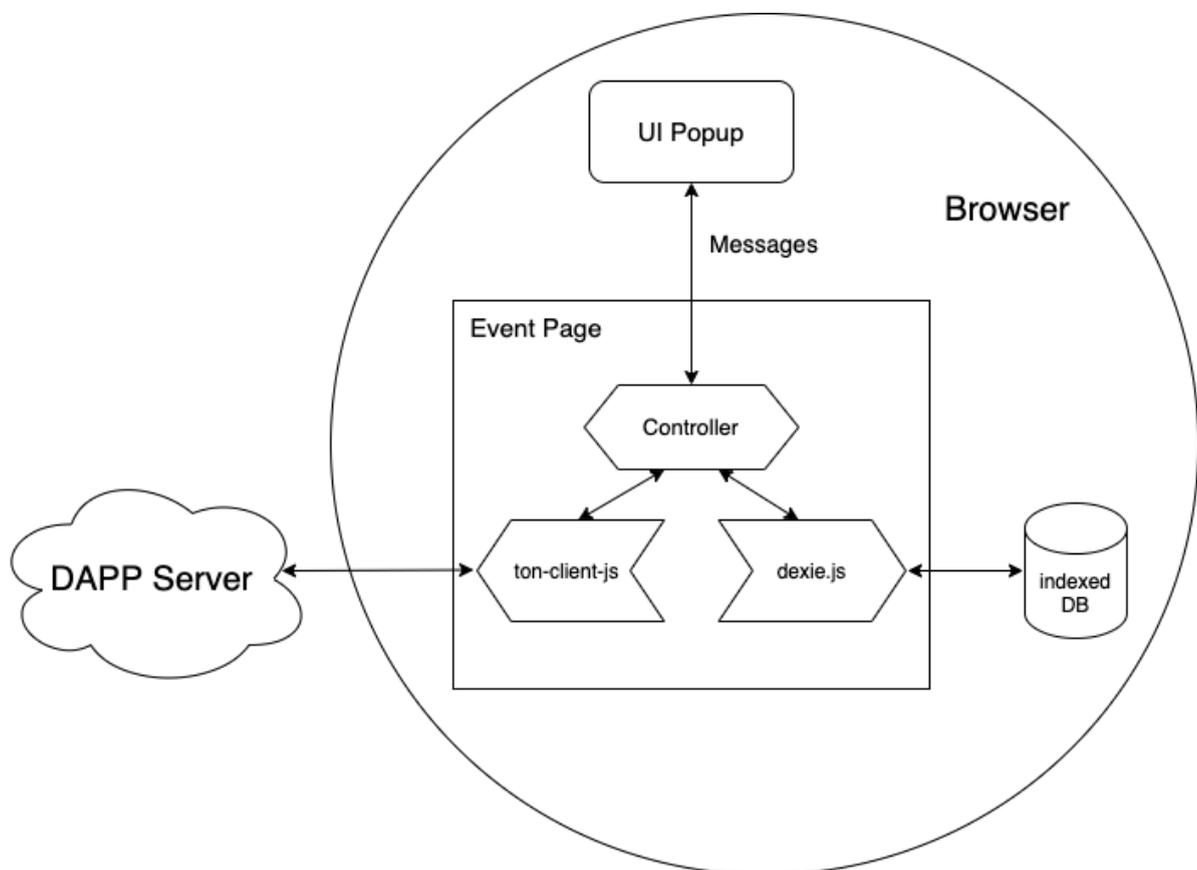
Languages: English, French, Spanish, Korean, Chinese, Russian.

Contracts: Safe Multisig, Setcode Multisig, Surf.

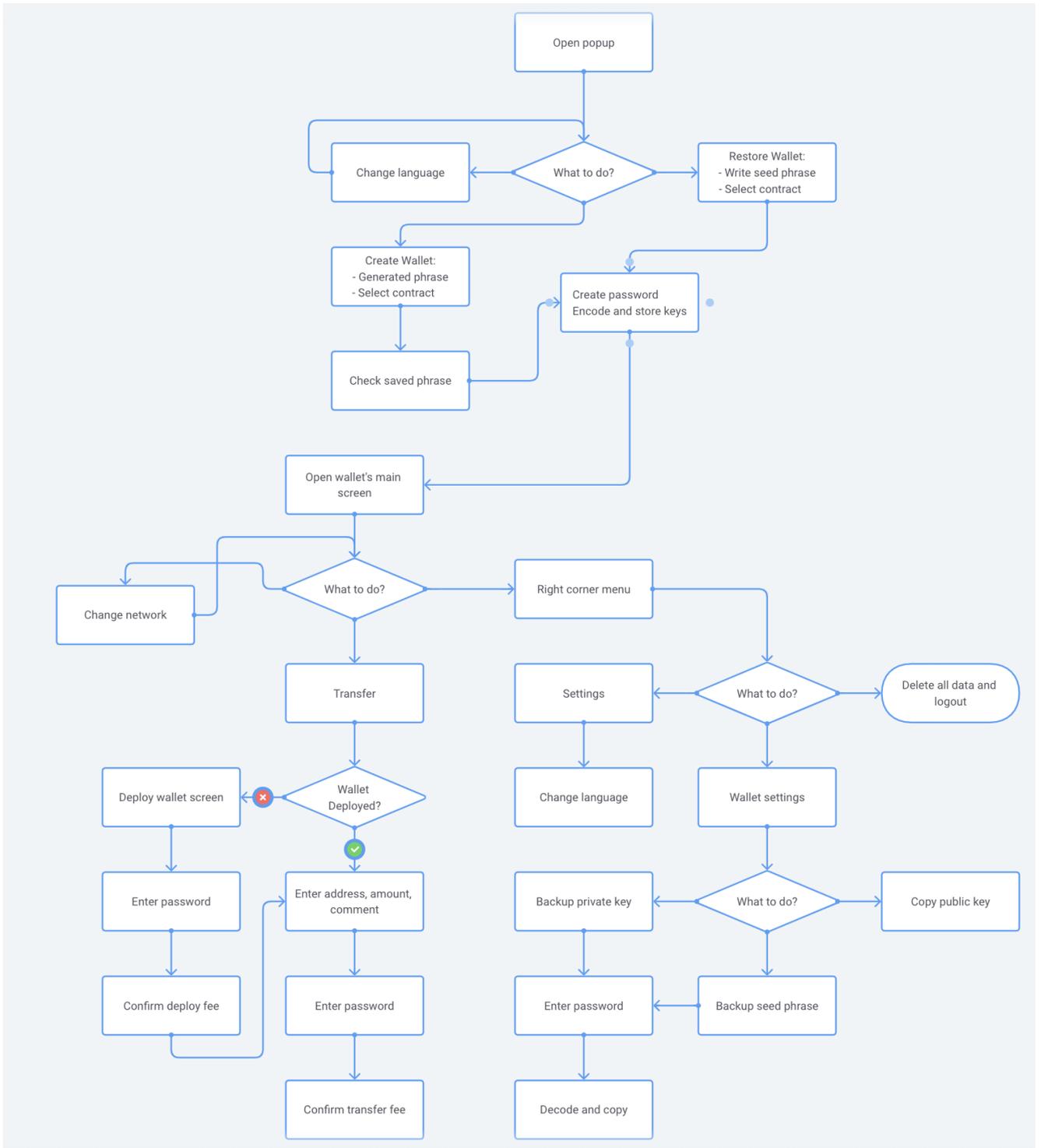
Stack: vue.js, vuetify, dexie, ton-client-js.

Private keys and seed phrases are storing encoded in indexedDB with **chacha20** encryption and user password. It decrypts only for sign messages by user confirmation.

3. Architecture



4. User Flow



5. Installation

Download and unzip

<https://github.com/extratraton/extratraton-extension/raw/contest-stage-1/artifacts/extratraton-v0.100.0-production.zip>

Google Chrome

Go to **chrome://extensions** , enable **Developer mode** in right top corner, press **Load Unpacked** and select unzipped folder with extension. Extension has installed, you can find it in browser toolbar under puzzle icon.

Firefox

Go to **about:debugging#/runtime/this-firefox** , press **Load Temporary Add-on...** and select downloaded zip file with extension. Extension has installed, you can find it in browser toolbar under puzzle icon.

Opera

Go to **opera://extensions** , enable **Developer mode** in right top corner, press **Load Unpacked** and select unzipped folder with extension. Extension has installed, you can find it in browser toolbar under puzzle icon.

Edge

Go to **edge://extensions** , enable **Developer mode** in left bottom corner, press **Load Unpacked** and select unzipped folder with extension. Extension has installed, you can find it in browser toolbar under puzzle icon.

Brave

Go to **brave://extensions** , enable **Developer mode** in right top corner, press **Load Unpacked** and select unzipped folder with extension. Extension has installed, you can find it in browser toolbar under puzzle icon.

6. Code Verification (Experimental)

Prepare code from store

Install [CRX Extractor Extension](#) to your Google Chrome.

Go to [extraTON wallet google store page](#), open **CRX Extractor Extension** and click **Download as ZIP**.

Unzip it:

```
unzip hhimbkmlnofjdajamcojlcmgialocllm.zip -d ext
```

Remove metadata:

```
rm -rf ext/_metadata
```

Compress again:

```
tar -czvf ext.tar.gz ./ext
```

Get md5 hash:

```
md5 ext.tar.gz
```

Prepare code from github

Clone and build project:

```
git clone https://github.com/extraton/extraton-extension.git
```

```
cd extraton-extension
```

```
git checkout {tag}
```

```
yarn install
```

```
yarn run build
```

Repack build and get md5 hash:

```
unzip artifacts/extraton-v{tag}-production.zip -d artifacts/ext
```

```
tar -czvf artifacts/ext.tar.gz artifacts/ext
```

```
md5 artifacts/ext.tar.gz
```

Compare md5 hashes.