

Commodity Tokenization Platform

Functionality

This document includes a description of user stories for the Commodity Tokenization Platform and describes roles and actions of both users and administrators in the system. A detailed description of user stories with acceptance criteria can be found in the full specification, [TokenD functionality in User Stories \(EN\)](#).

Note: TokenD is a white-label framework which is used as an underlying architectural solution for the described real estate platform to have it built fast (5 weeks) and for a price generally decreased by a factor of three. Brief description of the terms and functionality can be found in the following [two-pager document](#).

Roles

The set of roles available in the system is configured during system deployment. By default, the following roles are available:

- Platform owner. *Note: technically this role can perform other roles such as the role of a platform administrator*
- Administrators
 - Platform administrator
- Users
 - Unverified
 - Verified
 - Corporate

User and administrator roles can be configured depending on the system's goals and business processes. For example, the platform administrator role can be split into and be performed by different administrators:

- KYC/AML administrator
- Fees administrator
- Limits administrator
- Trade administrator
- Opportunity administrator
- Security administrator
- Issuance administrator

In this case, each administrator role will only have part of the super administrator's abilities. User roles can also have extended configuration depending on the business processes.

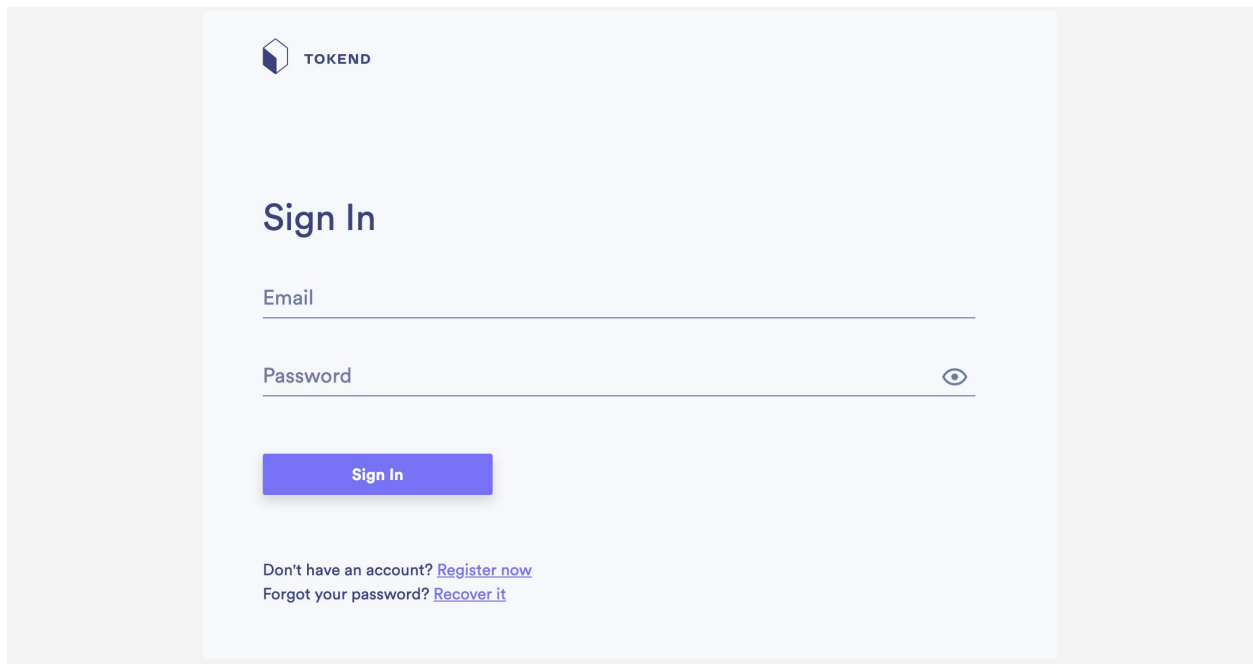
Requirements

- Registration and log-in
- Deposit and withdrawal
- Tokenized assets lifecycle management
- Transactions and operation management
- Identity control and management
- Account access and management
- Application requirements
- Ledger synchronization

User Stories

Note: in the following examples, TokenD is being used as a brand of a platform, but that's only for demo purposes. In reality, TokenD is not a platform but rather a framework with ready-made toolsets to build your own branded platform.

Registration and log-in requirements



The image shows a web form for signing in to the TokenD platform. The form is centered on a light gray background. At the top left of the form is the TokenD logo. Below the logo is the title "Sign In" in a large, bold, dark blue font. Underneath the title are two input fields: "Email" and "Password". The "Password" field has a small eye icon to its right, indicating a toggle for password visibility. Below the input fields is a blue button with the text "Sign In" in white. At the bottom of the form, there are two lines of text: "Don't have an account? [Register now](#)" and "Forgot your password? [Recover it](#)".



User

- As a **user**, I want to **sign up to the platform** by entering an email address and password.
- As a **user**, I want to **confirm registration** by email.
- As a **user**, I want to **sign in to the platform** by entering an email address and password.

Administrator

- As an **administrator**, I want to be able to **sign up to the platform** with the ability to confirm the process using 2FA.
- As an **administrator**, I want to be able to **sign in to the platform** by entering an email address, password, and confirmation **through 2FA code**.

Deposit and withdrawal requirements

Deposit

Verified user

- As a **verified user**, I want to be able to **select asset to deposit** from the list of those available for deposit.
- As a **verified user**, I want to be able to **view asset deposit address** both **as text** and **as QR code**.
- As a **verified user**, I want to be able to **deposit cryptocurrencies and digital currencies** to the platform **from my accounts / addresses of other accounting systems**.
- As a **verified user**, I want to be able to **deposit fiat currencies** onto the platform **using a credit card or bank transfer**.



Corporate user

- As a **corporate user**, I want to be able to **select an asset to deposit** from the list of ones available for depositing.
- As a **corporate user**, I want to be able to **view asset deposit address** both **as text** and **as QR code**.
- As a **corporate user**, I want to be able to **deposit cryptocurrencies and digital currencies** on the platform **from my accounts / my addresses in other accounting systems**.
- As a **corporate user**, I want to be able to **deposit fiat currencies** onto the platform **using a credit card or bank transfer**.

Withdraw

Verified user

- As a **verified user**, I want to be able to **withdraw cryptocurrencies and digital currencies** on the platform **to external address / account**.
- As a **verified user**, I want to be able to **conduct the withdrawal of fiat currencies** from the platform **to a credit card or bank account**.
- As **verified user**, I want to be able to **manage the withdrawal details of cryptocurrencies, digital currencies, fiat currencies** as well as to **access information related to withdrawals**.

Corporate user

- As a **corporate user**, I want to be able to **withdraw cryptocurrencies and digital currencies** on the platform **to external address / account**.
- As a **corporate user**, I want to be able to **conduct the withdrawal of fiat currencies** from the platform **to a credit card or bank account**.



- As **corporate user**, I want to be able to **manage the withdrawal details of cryptocurrencies, digital currencies, fiat currencies** as well as to **access information related to withdrawals**.

Transactions and operation management requirements

User

- As a **user**, I want to be able to **view the details of transactions associated with my account**.

Movements

A alice@mail.com General account

Show: Swiss franc (CHF) Withdraw Deposit Send

| Type | Operation | Date | Amount |
|----------------|----------------------------|------------------------|---------------|
| Charged | Payment | June 24, 2019 at 18:05 | -1 CHF |
| Matched | Sale closed | May 20, 2019 at 18:04 | -200,000 CHF |
| Locked | Investment | May 20, 2019 at 18:03 | -200,000 CHF |
| Issued | Issuance/deposit requested | May 20, 2019 at 18:01 | 1,000,000 CHF |

Verified user

- As a **verified user**, I want to be able to **view** the transaction details **about outgoing payments**.
- As a **verified user**, I want to be able to **view** the transaction details **about incoming payments**..
- As a **verified user**, I want to be able to **view** the details **about deposit transactions**.
- As a **verified user**, I want to be able to **view** the details **about withdrawal transactions**.
- As a **verified user**, I want to be able to **view the details of transactions regarding asset selling**.



- As a **verified user**, I want to be able to **view the details of transactions regarding asset selling**.

Corporate user

- As a **corporate user**, I want to be able to view the **history of transactions associated with a specific commodity tokenization campaign**.

Administrator

Fee requirements for administrator

- As a **fees administrator**, I want to be able to **manage details of fees related to asset trading**.

Fee management

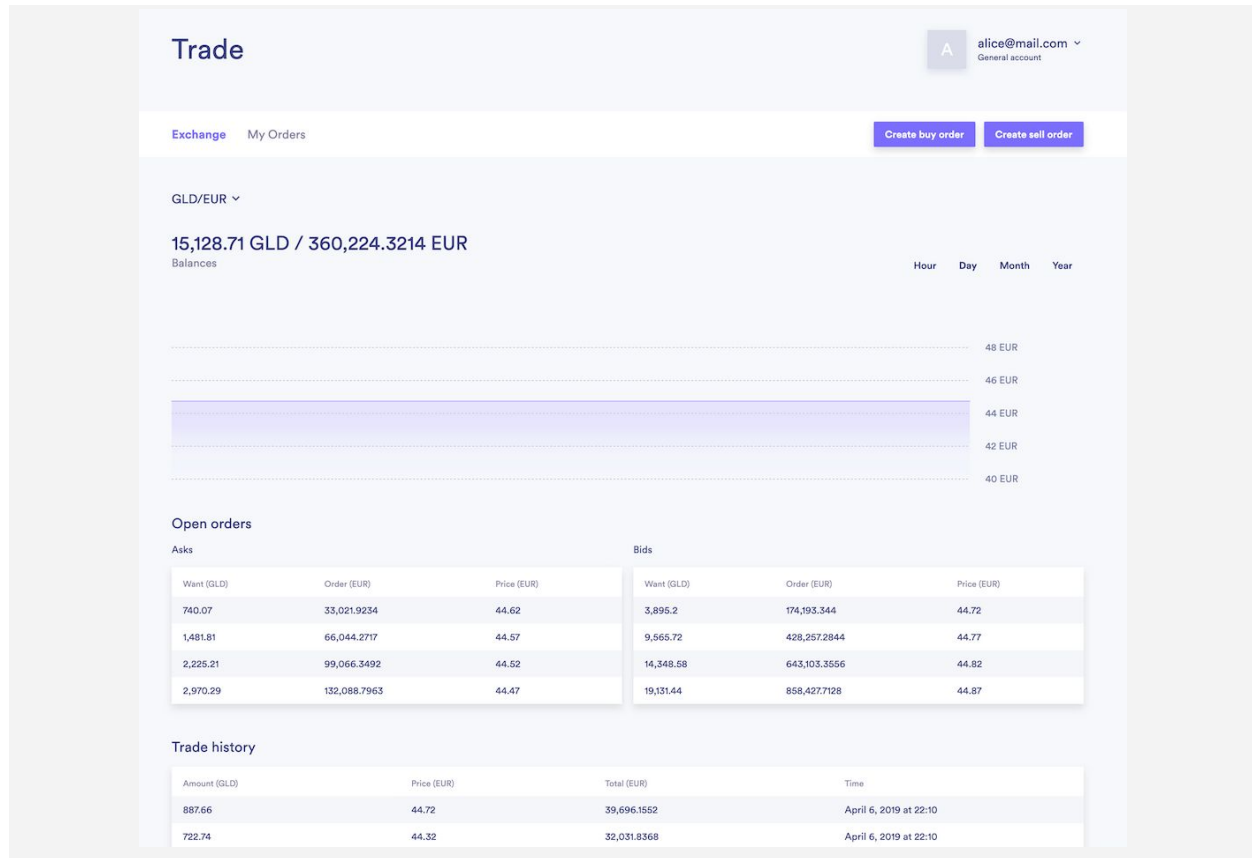
| | | |
|--------|---------|-----------|
| Scope | Type | Direction |
| Global | Payment | outgoing |
| Asset | | |
| USD | | |

| Lower bound | Upper bound | Percent fee | Fixed fee | | |
|-------------|--------------|-------------|-----------|--------|--------|
| 0.000000 | 100.000000 | 1.000000 | 0.000000 | Update | Delete |
| 100.000001 | 10000.000000 | 2.000000 | 0.000000 | Update | Delete |

Tokenized assets lifecycle management requirements



Tokenized assets trading



Verified user

- As a **verified user**, I want to be able to **exchange one tokenized asset for another** without the risk of losing the first one.
- As a **verified user**, I want to be able to **trade tokenized assets** within the platform.
- As a **verified user**, I want to be able to **create orders** for buying and selling assets.
- As a **verified user**, I want to be able to **manage orders**.
- As a **verified user**, I want to be able to **sell / buy tokenized assets for cryptocurrencies and digital currencies**.
- As a **verified user**, I want to be able to **buy / sell tokenized assets for fiat currency**.



Trade



alice@mail.com
General account

Exchange My Orders

Create buy order

Create sell order

GLD/USD ▾

15,128.71 GLD / 37,551.884 USD

Balances

Hour Day Month Year



Open orders

Asks

| Want (GLD) | Order (USD) | Price (USD) |
|------------|--------------|-------------|
| 17,151.8 | 55,228.796 | 3.22 |
| 34,410.46 | 110,457.5766 | 3.21 |
| 51,776.99 | 165,686.368 | 3.2 |
| 69,252.41 | 220,915.1879 | 3.19 |

Bids

| Want (GLD) | Order (USD) | Price (USD) |
|------------|-------------|-------------|
| 4,738.47 | 15,352.6428 | 3.24 |
| 9,476.95 | 30,800.0875 | 3.25 |
| 14,215.43 | 46,342.3018 | 3.26 |
| 18,953.91 | 61,979.2857 | 3.27 |

Trade history

| Amount (GLD) | Price (USD) | Total (USD) | Time |
|--------------|-------------|--------------|------------------------|
| 20,454.26 | 3.23 | 66,067.2598 | April 6, 2019 at 22:10 |
| 13,636.17 | 3.22 | 43,908.4674 | April 6, 2019 at 22:10 |
| 6,818.08 | 3.21 | 21,886.0368 | April 6, 2019 at 22:10 |
| 34,468.67 | 3.15 | 108,576.3105 | April 6, 2019 at 22:10 |
| 17,179.79 | 3.16 | 54,288.1364 | April 6, 2019 at 22:09 |
| 7,014.83 | 3.19 | 22,377.3077 | April 6, 2019 at 22:09 |
| 3,507.41 | 3.18 | 11,153.5638 | April 6, 2019 at 22:09 |
| 8,846.47 | 3.16 | 27,954.8452 | April 6, 2019 at 22:09 |
| 4,423.23 | 3.15 | 13,933.1745 | April 6, 2019 at 22:08 |
| 19,792.54 | 3.12 | 61,752.7248 | April 6, 2019 at 22:08 |
| 13,195.03 | 3.11 | 41,036.5433 | April 6, 2019 at 22:08 |
| 6,597.51 | 3.1 | 20,452.281 | April 6, 2019 at 22:07 |

More

Corporate user



TOKEND

- As a **corporate user**, I want to be able to **exchange one tokenized asset for another** without the risk of losing the first one.
- As a **corporate user**, I want to be able **to trade tokenized assets** within the platform.
- As a **corporate user**, I want to be able to **create orders** for buying and selling assets.
- As a **corporate user**, I want to be able to **manage orders**.
- As a **corporate user**, I want to be able to **sell / buy tokenized assets for cryptocurrencies and digital currencies**.
- As a **corporate user**, I want to be able to **buy / sell tokenized assets for fiat currency**.



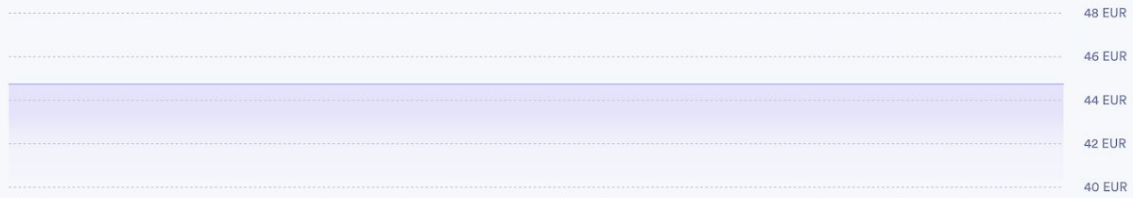
Trade

corporate@mail.com
Corporate account[Exchange](#) [My Orders](#)[Create buy order](#)[Create sell order](#)

GLD/EUR ▾

17.41 GLD / 0 EUR

Balances

[Hour](#) [Day](#) [Month](#) [Year](#)

Open orders

Asks

| Want (GLD) | Order (EUR) | Price (EUR) |
|------------|--------------|-------------|
| 740.07 | 33,021.9234 | 44.62 |
| 1,481.81 | 66,044.2717 | 44.57 |
| 2,225.21 | 99,066.3492 | 44.52 |
| 2,970.29 | 132,088.7963 | 44.47 |

Bids

| Want (GLD) | Order (EUR) | Price (EUR) |
|------------|--------------|-------------|
| 3,895.2 | 174,193.344 | 44.72 |
| 9,565.72 | 428,257.2844 | 44.77 |
| 14,348.58 | 643,103.3556 | 44.82 |
| 19,131.44 | 858,427.7128 | 44.87 |

Trade history

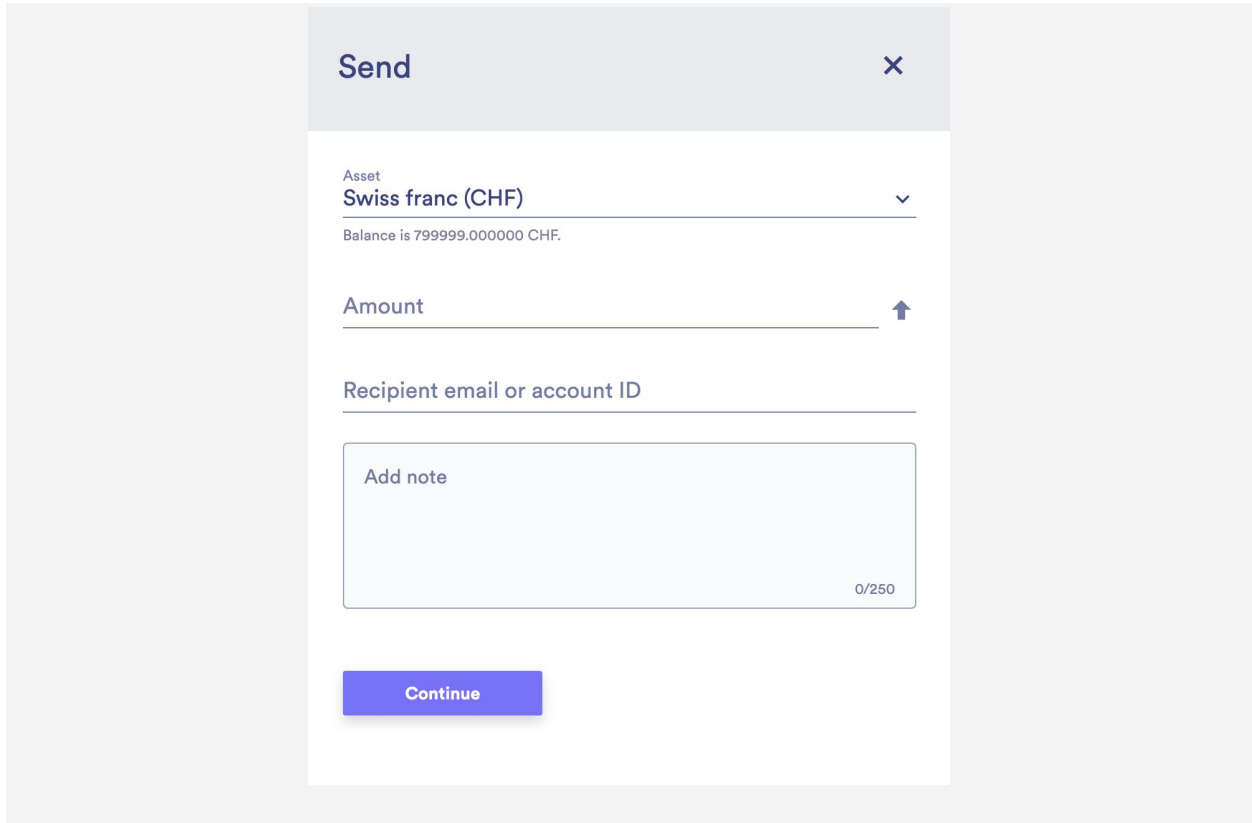
| Amount (GLD) | Price (EUR) | Total (EUR) | Time |
|--------------|-------------|--------------|------------------------|
| 887.66 | 44.72 | 39,696.1552 | April 6, 2019 at 22:10 |
| 722.74 | 44.32 | 32,031.8368 | April 6, 2019 at 22:10 |
| 518.75 | 44.42 | 23,042.875 | April 6, 2019 at 22:10 |
| 1,116.62 | 44.42 | 49,600.2604 | April 6, 2019 at 22:10 |
| 642.82 | 44.33 | 28,496.2106 | April 6, 2019 at 22:09 |
| 1,496.52 | 44.12 | 66,026.4624 | April 6, 2019 at 22:09 |
| 2,468.04 | 43.92 | 108,396.3168 | April 6, 2019 at 22:09 |
| 1,072.4 | 44.12 | 47,314.288 | April 6, 2019 at 22:08 |
| 1,643.49 | 43.97 | 72,264.2553 | April 6, 2019 at 22:08 |
| 820.81 | 44.02 | 36,132.0562 | April 6, 2019 at 22:08 |
| 393.02 | 43.75 | 17,194.625 | April 6, 2019 at 22:08 |
| 1,572.08 | 43.75 | 68,778.5 | April 6, 2019 at 22:08 |

[More](#)

Tokenized assets trading

Verified user

- As a **verified user**, I want to be able to **transfer tokenized assets to other platform users** without intermediaries.
- As a **verified user**, I want to be able to **receive tokenized assets** from other platform users **without intermediaries**.
- As a **verified user**, I want to be able to **fully configure details of asset transfers**



Send ×

Asset
Swiss franc (CHF) ▾
Balance is 799999.000000 CHF.

Amount ↑

Recipient email or account ID

Add note
0/250

Continue

- As a **verified user**, I want to be able to **invest** in commodity tokenization campaigns.
- As a **verified user**, I want to be able to **participate in whitelisted commodity tokenization campaigns** if I am invited by its initiator.



TOKEND

- As a **verified user**, I want to be able to **trade tokenized assets** received via campaign on secondary market.

Corporate user

- As a **corporate user**, I want to be able to **transfer tokenized assets to other platform users** without intermediaries.
- As a **corporate user**, I want to be able to **receive tokenized assets** from other platform users **without intermediaries**.
- As a **corporate user**, I want to be able to **fully configure details of asset transfers**.

Tokenised asset creation

Corporate user

- As a **corporate user**, I want to be able to **create tokenized assets** on the platform.
- As a **corporate user**, I want to be able to **manage asset pre-issuance details**.
- As a **corporate user**, I want to be able to **upload pre-issuance files** to the platform.
- As a **corporate user**, I want to be able to **issue tokenized assets** to the platform.
- As a **corporate user**, I want to be able to **configure parameters of asset issued**.



Create asset

1. Asset information

2. Advanced

Asset name

Asset code

Max issuance amount

Type

☐ Transferable

☐ Withdrawable

Asset icon

Drag a file here or click to browse

JPG or PNG, no less than 120x120 px

Next

Create asset

1. Asset information

2. Advanced

☐ I do not want to make additional issuance later

[Learn more about pre-issuance](#)

Pre-issuance asset signer ID

Use mine

Initial pre-issued amount

Upload terms

Drag a file here or click to browse

JPG, PNG, PDF, max 5 mb.

Create request

- As a **corporate user**, I want to be able to **set up a commodity tokenization campaign**.
- As a **corporate user**, I want to be able to **create whitelisted commodity tokenization campaigns** and **invite specific users** to participate in them.
- As a **corporate user**, I want to be able to **manage commodity tokenization campaign parameters**.
- As a **corporate user**, I want to be able to **configure price of assets sold during commodity tokenization campaign in the selected assets**.

Administrator

Pre-issuance requirements for administrator



- As an **administrator**, I want to be able to **view and process requests for creating tokenized assets**.

Preissuance Requests

| | | | |
|------------|-------|----------|-------------------------------------|
| Asset | | | |
| All | | ▼ | |
| | | | |
| Amount | Asset | Status | |
| 100.000000 | PIA | Approved | <div>Reject</div> <div>Accept</div> |
| | | More | |

Issuance requirements for administrator

- As an **administrator**, I want to be able to **create tokenized assets** on the platform.
- As an **administrator**, I want to be able to **update configuration of a specific asset**.
- As an **administrator**, I want to be able to **view and process issuance requests**.



Issuance

Receiver (email or address)

Reference

Amount

Asset

BTC

▼

Available: 20,999,800.000000 BTC

Issue

HistoryRequests

State

Approved

▼

Asset

▼

| Value | Date | Requestor |
|--------------------|-------------------------|-----------------------------------|
| 1,000.000000 USD | 11 Mar 2019 at 06:35:25 | GBA4EX43M25UPV4WIE6RRMQOFTWXZZ... |
| 100,000.000000 USD | 11 Mar 2019 at 06:54:16 | GBA4EX43M25UPV4WIE6RRMQOFTWXZZ... |
| 100.000000 EUR | 11 Mar 2019 at 06:55:28 | GBA4EX43M25UPV4WIE6RRMQOFTWXZZ... |

Identity requirements

User

- As a **user**, I want to be able to **provide my KYC data to change my account permissions**.
- As a **user**, I want to be able to see the **current state** of my **request for confirming KYC data**.

Unverified user



TOKENEND

- As an **unverified user**, I want to be able to **provide my KYC data** to an administrator and subsequently **become verified upon confirmation**.
- As an **unverified user**, I want to be able to **provide my KYC data** to an administrator and subsequently **become corporate upon confirmation**.

Verified user

- As a **verified user**, I want to be able to change (update) my KYC data.

Corporate user

- As **corporate user**, I want to be able to view and update my KYC data.

Account management and access requirements

Platform owner

- As a **platform owner**, I want to be able to **perform the initial configuration** of the platform by **changing the initialization scripts**, namely to configure the roles of users and administrators of the platform, system assets, trading pairs of assets.
- As a **platform owner**, I want to **have access to all transactions** performed on the platform.

User (Unverified, Verified, Corporate)

- As a **user**, I want to **have access to all the transactions** associated with my account.



Movements



alice@mail.com
General account

Show: Digital Gold (GLD) ▾

Withdraw

Deposit

Send

| Type | Operation | Date | Amount | |
|---------|-----------|------------------------|---------------|---|
| Matched | Offer | April 6, 2019 at 15:47 | 5,251.87 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:45 | 3,923.33 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:28 | 786.1 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:18 | 2,605.25 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:18 | -2,597.41 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:18 | -214.07 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:17 | -2,108.61 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:17 | -2,565.37 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:17 | 588.94 GLD | ▾ |
| Matched | Offer | April 6, 2019 at 15:17 | -1,924.02 GLD | ▾ |

More

- As a **user**, I want to be able to **view other users' account identifiers**.

Movements







A **alice@mail.com** ▾
General account

Show: Swiss franc (CHF) ▾

Withdraw

Deposit

Send

| Type | Operation | Date | Amount | |
|--|--|------------------------|---------------|---|
|  Charged | Payment | June 24, 2019 at 18:05 | -1 CHF | ^ |
| Type | Charged | | | |
| Operation | Payment | | | |
| Date | June 24, 2019 at 18:05 | | | |
| Amount | 1 CHF | | | |
| Source pays for destination | false | | | |
| Subject | | | | |
| Payment sender | alice@mail.com  | | | |
| Payment recipient | bob@mail.com  | | | |
|  Matched | Sale closed | May 20, 2019 at 18:04 | -200,000 CHF | ▾ |
|  Locked | Investment | May 20, 2019 at 18:03 | -200,000 CHF | ▾ |
|  Issued | Issuance/deposit requested | May 20, 2019 at 18:01 | 1,000,000 CHF | ▾ |

- As a **user**, I want to be able to **change the password** of my account.

Change password

×

Current password

👁

New password

👁

Confirm new password

👁

Change password

- As a **user**, I want to be able to **restore access to my account** in case its password is lost.




- As a **user**, I want to be able to **configure the two-factor authentication** to increase account security.

Enable 2FA

×

Scan the QR with your 2FA app. We recommend Google Authenticator for most users. It doesn't require an internet connection or phone service to use, and is more secure than SMS due to being offline and local to your device.



Or manually set the secret code

Secret

WQVBLC2DPFIFEXIV

📋

And enter your 2FA code to continue

2FA code

Enable

- As a **user**, I want to be able to **view balances** of my account.
- As a **user**, I want **to view the balances of my assets** as a catalog.

Assets

Explore assets **My balances**

C
CHF
Swiss franc
Balance: 799,999 CHF

E
EUR
EUR
Balance: 360,224.3214 EUR

R
RBL
Red Balloon
Balance: 1,000 RBL

U
USD
USD
Balance: 37,551.884 USD

T
TDT
TokenD Token
Balance: 99,999 TDT

P
PBP
PBP
Balance: 13,700 PBP

B
BTC
BTC
Balance: 0 BTC

B
BST
Blocksport Token
Balance: 0 BST

Asset details

E **EUR**
EUR

| | |
|----------------|-----------------------|
| Balance | 360,224.3214 EUR |
| Maximum | 1,000,000,000 EUR |
| Issued | 1,101,124 EUR |
| Available | 998,898,876 EUR |
| Transferable | Yes |
| Withdrawable | Yes |
| Deposit method | Non-depositable |
| Asset type | Requires verification |
| Terms | No terms |
| Owner | Master |

- As a **user**, I want to be able to **view the trading history** as an asset ratio diagram.

Trade

A **alice@mail.com** General account


Exchange My Orders **Create buy order** **Create sell order**

GLD/EUR ▾

15,128.71 GLD / 360,224.3214 EUR

Balances

Hour Day Month Year



40 EUR
30 EUR
20 EUR
10 EUR
0 EUR



- As a **user**, I want to be able to **view the fees details** for my account.
- As a **user**, I want to be able to **view the fees details for a particular asset** on the platform.

Fees

A

alice@mail.com
General account

Asset: Digital Gold (GLD) ▾

| Type | Direction | Fixed | Percent | Lower bound | Upper bound |
|---------|-----------|----------|---------|------------------|------------------------------|
| Payment | Incoming | 0 GLD | 2% | 0 GLD | 100 GLD |
| Payment | Incoming | 0 GLD | 1% | 100.000001 GLD | 1,000 GLD |
| Payment | Incoming | 2 GLD | 0% | 1,000.000001 GLD | 9,223,372,036,854.775807 GLD |
| Payment | Outgoing | 0.01 GLD | 2% | 0 GLD | 100 GLD |
| Payment | Outgoing | 0 GLD | 1% | 100.000001 GLD | 1,000 GLD |
| Payment | Outgoing | 1 GLD | 0% | 1,000.000001 GLD | 9,223,372,036,854.775807 GLD |

- As a **user**, I want to be able to **view the order history**.

Trade history

| Amount (GLD) | Price (USD) | Total (USD) | Time |
|--------------|-------------|--------------|------------------------|
| 20,454.26 | 3.23 | 66,067.2598 | April 6, 2019 at 22:10 |
| 13,536.17 | 3.22 | 43,908.4674 | April 6, 2019 at 22:10 |
| 6,818.08 | 3.21 | 21,886.0368 | April 6, 2019 at 22:10 |
| 34,468.67 | 3.15 | 108,576.3105 | April 6, 2019 at 22:10 |
| 17,179.79 | 3.16 | 54,288.1364 | April 6, 2019 at 22:09 |
| 7,014.83 | 3.19 | 22,377.3077 | April 6, 2019 at 22:09 |
| 3,507.41 | 3.18 | 11,153.5638 | April 6, 2019 at 22:09 |
| 8,846.47 | 3.16 | 27,954.8452 | April 6, 2019 at 22:09 |
| 4,423.23 | 3.15 | 13,933.1745 | April 6, 2019 at 22:08 |

Verified user

- As **verified user**, I want to **view the list of ongoing commodity tokenization campaigns**.



Sales

Investable sales

Live ▾



Yutaka Mansions

Most investors buy REITs for their rich dividends, although those dividends are usually fully taxable. Keep in mind, though, that each real estate sector is affected by different economic cycles. Larger, diversified, or geographically dispersed REITs are

0% funded
0 USD invested
0 days to launch

Buy **5,000 REIT** for **200,000 USD**



Oleg's Second Offering

Participate in the second offering and get a discount!

0% funded
0 USD invested
0 days to launch

Buy **1,000 OLG** for **20,000 USD**

- As **verified user**, I want to be able to **view the commodity tokenization campaigns details** when they are selected.



Sale details



alice@mail.com
General account

Investable sales [Campaign](#)

Yutaka Mansions (REIT)

Most investors buy REITs for their rich dividends, although those dividends are usually fully taxable. Keep in mind, though, that each real estate sector is affected by different economic cycles. Larger, diversified, or geographically dispersed REITs are

[View details](#)



No description provided

0 USD

0% funded

0

days to go

Invest in this sale

Asset

BTC (BTC)

Balance: 0 BTC

Amount BTC

Converted: 0 USD

[Invest](#)

- As a **verified user**, I want to be able to **create requests for changing limits** of my account.



Change limits

×

Operation type limit

Deposit

▼

| Type | Limit |
|---------------|--------------|
| Daily Limit | 100.000000 |
| Weekly Limit | 700.000000 |
| Monthly Limit | 3100.000000 |
| Annual Limit | 35600.000000 |

Request new limits

Daily Limit

100.000000

Weekly Limit

700.000000

Monthly Limit

3100.000000

Annual Limit

35600.000000

Note (optional)

0/250

Send request

- As a **verified user**, I want to be able to view the state of the request for changing limits.

| Requests | | | | |
|-------------------------|--------------|---------|-------|-------------------------|
| Date | Request type | State | Asset | |
| August 6, 2019 at 16:40 | Initial | Pending | GLD | Details |

- As a **verified user**, I want **to receive information about the documents required for changing limits**.



- As a **verified user**, I want to be able to **upload the documents required for changing limits**.

Limits request details ×

Your request was submitted. Please wait until it is reviewed

| Request type | Initial |
|---------------|-------------------|
| Daily limit | 1000.000000 GLD |
| Weekly limit | 7000.000000 GLD |
| Monthly limit | 31000.000000 GLD |
| Annual limit | 356000.000000 GLD |

Upload documents

- As a **verified user**, I want to be able to **view the details of limits** imposed on my account **in terms of asset transfers**.
- As a **verified user**, I want to be able to **view the details of limits** imposed on my account **in terms of asset withdrawals**.
- As a **verified user**, I want to be able to **view the details of limits** imposed on my account **in terms of asset deposits**.



Limits

A

alice@mail.com ▾
General account[Explore limits](#)[Change limits](#)

Requests

| Date | Request type | State | Asset | |
|-------------------------|--------------|---------|-------|-------------------------|
| August 6, 2019 at 16:40 | Initial | Pending | GLD | Details |

Current limits

GLD ▾

| Operation type | Daily (left/total) | Weekly (left/total) | Monthly (left/total) | Annual (left/total) |
|----------------|--------------------|---------------------|----------------------|---------------------|
| Withdraw | 200 / 200 | 1,400 / 1,400 | 6,200 / 6,200 | 70,000 / 70,000 |
| Deposit | 100 / 100 | 700 / 700 | 3,100 / 3,100 | 35,600 / 35,600 |
| Payment | 100 / 100 | 700 / 700 | 3,100 / 3,100 | 35,600 / 35,600 |

Corporate user

- As a **corporate user**, I want to be able to **submit information on a commodity tokenization campaign**
- As a **corporate user**, I want to be able to **submit a description of an ongoing campaign**.



New sale



1. Main information

2. Short blurb

3. Full description

Sale name

Base asset

TokenD Token2 (TDT2)



Cap asset

USD (USD)



TDT2 to sell

Available: 1,000 TDT2

☐ Whitelisted

Start time

Close time

Soft cap (USD)

Hard cap (USD)

Price (USD for 1 TDT2) \approx NaN USD

Accept investments in:

☐ BTC (BTC)

New sale



1. Main information

2. Short blurb

3. Full description

Upload the image users will see first in their searcher



Selected file: 130802164505-skyscrapers-gallery---cctv-horizontal-large-gallery.jpg

Drag another file here or click to browse

JPG, PNG, max 5 mb.

Short description

1/255

Next

- As a **corporate user**, I want to be able to **submit information on backing assets**.



New sale ×

1. Main information

2. Short blurb

3. Full description

Insert YouTube video link or ID

Preview your video

Full description

B I H₁ H₂

- As a **corporate user**, I want to be able **to view portfolios of the commodity tokenization campaigns** in which assets have been invested.



Sales



corporate@mail.com ▾
Corporate account

Investable sales

My sales

+ Create

Live ▾



Yutaka Mansions

Most investors buy REITs for their rich dividends, although those dividends are usually fully taxable. Keep in mind, though, that each real estate sector is affected by different economic cycles. Larger, diversified, or geographically dispersed REITs are

0% funded
0 USD invested
0 days to launch

Buy **5,000 REIT** for **200,000 USD**



Oleg's Second Offering

Participate in the second offering and get a discount!

0% funded
0 USD invested
0 days to launch

Buy **1,000 OLG** for **20,000 USD**

- As **corporate user**, I want to be able to **view the summary of a specific commodity tokenization campaign**.



Sale overview



Asset

R

REIT

Real Estate Investment Token

| | |
|----------------|-----------------------|
| Maximum | 10,000 |
| Issued | 0 |
| Available | 5,000 |
| Transferable | Yes |
| Withdrawable | No |
| Deposit method | Non-depositable |
| Asset type | Requires verification |
| Requires KYC | Yes |
| Terms | No terms |

Details

| | |
|--------------|----------------------------|
| Start time | Yesterday at 18:45 |
| Close time | September 6, 2019 at 12:00 |
| Soft cap | 100,000 USD |
| Hard cap | 200,000 USD |
| REIT to sell | 5,000 REIT |
| Whitelisted | No |
| Owner | corporate@mail.com |

Administrator

- As an **administrator**, I want to be able to view the **details of all platform users accounts**.



| User index | | | | A admin_demo | |
|-----------------------|-------------|------------|--------|--------------|--|
| Role | | Requestor | | | |
| Email | Account ID | Role | State | | |
| pp@distributedlab.com | GAIG...HNQF | Unverified | Active | | |
| corporate@mail.com | GBZN...QXQC | Corporate | Active | | |
| qqq@qqq.qqq | GB3F...GTKI | Unverified | Active | | |
| bilbo@mail.com | GD5M...BHJ5 | General | Active | | |

- As an **administrator**, I want to be able to **view the list of all other platform administrators**.

Admin index

A

admin_demo

Admin list

+ New admin

| | Role | Account ID | Weight | Identity |
|-------------------|---------------------|-------------|--------|----------|
| Dev admin | Super Administrator | GCNU...XT5D | 1000 | 1 |
| Super Admin (you) | Super Administrator | GCLD...M3AR | 1000 | 0 |

- As an **administrator**, I want to be able to **view updates** associated with **platform administrators' accounts**.



Admin index

Manage administrator

Account ID
GCNUPUQ6HCPGLW4FIEEELVLJFXSCRRVJONJVU52IRBK5RCOXMPAXT5D

Name
Dev admin

Identity
1

Weight
1000

Signer role
License Admin

Able to manage system licenses

Update Delete

- As an **administrator**, I want to be able to **create platform administrators** using predefined templates.

Admin index

Add new administrator

Account ID

Name

Identity Weight

- Master
- Super Administrator
- ✓ KYC/AML
- External Systems Administrator
- License Admin

Add

- As an **administrator**, I want to be able to **update administrator accounts** on the platform.



- As an **administrator**, I want to be able to **delete platform administrators**.

Manage administrator

| | |
|--|--------|
| Account ID | |
| GCNUPUQ6HCPGXLW4FIEEELVLJFXSCRRVJONJVU52IRBK5RCOXMPAXT5D | |
| Name | |
| Dev admin | |
| Identity | Weight |
| 1 | 1000 |
| Signer role | |
| Super Administrator | |
| Have full access to system administration functionality | |
| Update | Delete |

KYC/AML and identity requirements for administrator

- As an **administrator**, I want to be able to **view and verify users' KYC data**.

User details

Account information

| | |
|---------------|--|
| Email | bob@mail.com |
| Account ID | GAEAIAZAH5GHRTPYAWTF6CINPLYPY6KVWSS2ESG36NCYUWLKJ... |
| Account role | General |
| Account state | Active |

Previous approved KYC Request

KYC information

Can be uploaded one of the documents:

- Valid Passport;
- Valid Identity card;
- Valid Residence permit;
- Driving license - full, not provisional, with a color photograph;

| | |
|----------------|-------------------------|
| First name | Bob |
| Last name | Sponge |
| Date of birth | 05 Aug 2019 at 01:04:01 |
| Address Line 1 | |



TOKEND

- As an **administrator**, I want to be able to **view the history of KYC requests**.
- As an **administrator**, I want to be able to **view the list of pending KYC requests**.
- As an **administrator**, I want to be able to **view new, pending KYC requests**.
- As an **administrator**, I want to be able to **view *update* KYC requests of verified users**.
- As an **administrator**, I want to be able to **view new, pending KYC requests of corporate users**.
- As an **administrator**, I want to be able to **view pending *update* KYC requests of corporate users**.

The screenshot shows a web interface with a dark blue header. On the left, there are two tabs: 'Index' and 'Queue', with 'Queue' being the active tab. On the right of the header, there is a user profile icon with the letter 'A' and the text 'admin_demo' followed by a dropdown arrow. Below the header, there is a white filter bar. It contains four dropdown menus: 'Role to set' (with a downward arrow), 'State' (set to 'Waiting for review' with a downward arrow), 'Pending tasks' (with a downward arrow), and 'Requestor' (with a text input field).

Pre-issuance requirements for administrator

- As an **administrator**, I want to be able to **view and process requests for pre-issuance**.

The screenshot shows a web interface with a dark blue header. It has three tabs: 'Pre-issuance', 'Change asset issuer', and 'Pre-issuance requests', with 'Pre-issuance requests' being the active tab. On the right of the header, there is a user profile icon with the letter 'A' and the text 'admin_demo' followed by a dropdown arrow. Below the header, there is a white content area. At the top of this area, it says 'Preissuance Requests'. Below that, there is a filter section with 'Asset' set to 'All' and a downward arrow. Below the filter, there is a table with the following data:

| Amount | Asset | Status | |
|------------|-------|----------|--|
| 100.000000 | PIA | Approved | |

At the bottom right of the table, there are two buttons: a red 'Reject' button and a blue 'Accept' button.



Issuance requirements for administrator

- As an **administrator**, I want to be able to **view all assets** on the platform.
- As an **administrator**, I want to be able to **view requests for issuing tokenized assets**.

System assets

Asset requests

Issuance

Asset pairs

Withdrawals

Manage assets

Request type

State

Requestor

Asset code

Create

Approved

State

Requestor

BST

Approved

GBMNRAXCI6UNH4K5G...

FBT

Approved

GBMNRAXCI6UNH4K5G...

PIA

Approved

GAI4JPE7LS2ML3SOVPY...

- As an **administrator**, I want to be able to **view** the entire **history of events** related to **asset issuance**.

Manage assets

Request type
Create

Pending
Canceled
✓ Approved
Rejected
Permanently rejected

Requestor

Asset code

| | State | Requestor |
|-----|----------|----------------------|
| BST | Approved | GBMNRAXCI6UNH4K5G... |

- As an **administrator**, I want to be able to **view pre-issuance files**.
- As an **administrator**, I want to be able to **approve requests for asset issuance**.
- As an **administrator**, I want to be able to **reject requests for asset issuance**.

System assets
Asset requests
Issuance
Asset pairs
Withdrawals

Manage assets

Request type
Create

State
Pending

Requestor

Asset code

| | State | Requestor |
|------|---------|-----------------------|
| ETH | Pending | GBRIJ4O6KJH7E4U4RW... |
| TDT3 | Pending | GBZNAXDKJW6PFJLBXJ... |



- As an **administrator**, I want to be able to **sign and upload pre-issuance files** on the platform.

Pre-issuance Change asset issuer Pre-issuance requests

Upload preissuance

Select file(s) with preissued asset and click **Upload**.
Note: you cannot upload the same preissuance twice
[Learn more about pre-issuance](#)

Select File(s)

Fees requirements for administrator

- As an **administrator**, I want to be able to **view and manage fees** on the platform to fulfill regulatory and business requirements.
- As an **administrator**, I want to be able to **view detailed fees configurations** for a particular account type, a particular asset, and a particular account.
- As an **administrator**, I want to be able to **manage fees** for a **particular asset**.
- As an **administrator**, I want to be able to **manage fees** for a **particular account type**.
- As an **administrator**, I want to be able to **manage fees** for a **particular account**.



Fee management

Scope

✓ Global
Account type
Account
USD

Type

Payment

Direction

outgoing

Limits requirements for administrator

- As an **administrator**, I want to be able to **view and manage limits** on the platform to fulfill **regulatory and business requirements**.
- As an **administrator**, I want to be able to **manage limits** for a **particular account type**.
- As an **administrator**, I want to be able to **manage limits** for a **particular account**.



Limits management

Asset
Digital Gold (GLD) ▾

Scope
✓ Global
Account type
Account

| Payment limits | Withdrawal limits | Deposit limits |
|---|---|---|
| Daily 100.000000 | Daily Not set | Daily Not set |
| Weekly 1000.000000 | Weekly Not set | Weekly Not set |
| Monthly 10000.000000 | Monthly Not set | Monthly Not set |
| Annual 100000.000000 | Annual Not set | Annual Not set |
| <button>Update</button> <button>Remove</button> | <button>Update</button> <button>Remove</button> | <button>Update</button> <button>Remove</button> |

- As an **administrator**, I want to be able to **manage user requests for changing limits**.
- As an **administrator**, I want to be able to **manage user requests for changing account limits with documents uploaded**.
- As an **administrator**, I want to be able to **view details of verified users' accounts**.
- As an **administrator**, I want to be able to **view details of corporate user accounts**.

[< Back](#)**Request information**

| | |
|-----------------------|---|
| Request date & time | 11 Mar 2019 at 06:58:40 |
| Account role | Corporate |
| Request type | Initial |
| Account email | corporate@mail.com |
| Account ID | GBZNAXDKJW6PFJLBXJUZZLLVDF2GII2UCWWBW5FF33UBWBYZGZHNOQXQC |
| Note | — |
| Limits for asset | USD |
| Operation type limits | deposit |

Current limits

| | |
|---------------|----------------------|
| daily limit | 9223372036854.775807 |
| weekly limit | 9223372036854.775807 |
| monthly limit | 9223372036854.775807 |
| annual limit | 9223372036854.775807 |

Desired limits

| | |
|---------------|-------|
| daily limit | 100 |
| weekly limit | 1000 |
| monthly limit | 10000 |
| annual limit | 10000 |

Approve

Request docs

Reject

Commodity tokenization requirements for administrator

- As an **administrator**, I want to be able to **view and process requests for creating commodity tokenization campaigns**.
- As an **administrator**, I want to be able to **view the list of pending requests** for creating commodity tokenization campaigns.



Sale request list

State

✓ Pending

Cancelled

Approved

Rejected

Permanently rejected

Requestor

| Name | Hard cap | Requestor |
|------|----------------------|----------------------|
| DLPJ | Private Jet Campaign | 2,000,000.000000 USD |
| | | corporate@mail.com |

Manage sale request

Details Full description Corporate user

Request details

Requestor

Request state

Requested at

corporate@mail.com

Pending

06 Aug 2019 17:59:47

Asset details

Name

Code

Initial preissued amount

Max issuance amount

Preissuance signer

Policies

Terms

Distributed Lab Private Jet

DLPJ

10,000.000000

10,000.000000

GAAQ...AHV4

—

(No document)

Asset logo

(No logo yet)

Sale details

Name

Whitelisted

Start time

End time

Soft cap

Hard cap

Max DLPJ amount to be sold

Private Jet Campaign

No

06 Aug 2019 18:05:00


06 Sep 2019 12:00:00

1,000,000.000000 USD

2,000,000.000000 USD

2,000.000000 DLPJ

Sale logo



Short description

let's get a private jet!

Approve

Reject



TOKEND

- As an **administrator**, I want to be able to **view the list of approved requests** for creating commodity tokenization campaigns.
- As an **administrator**, I want to be able to **view the list of commodity tokenization campaigns**.

Sale list

| | | | |
|------------|----------|---------------|---|
| Asset code | Owner | State Open | ▼ |
| Start date | End date | Type | ▼ |

| | Name | State | Owner |
|------|------------------------|-------|--------------------|
| REIT | Yutaka Mansions | Open | corporate@mail.com |
| OLG | Oleg's Second Offering | Open | corporate@mail.com |



Sale overview

Details Full description Participants Corporate user

Asset details

| | |
|------------------------|------------------------------|
| Name | Real Estate Investment Token |
| Code | REIT |
| Owner | corporate@mail.com |
| Preissued asset signer | GAAQ...AHV4 |
| Max issuance amount | 10,000.000000 |
| Pending issuance | 5,000.000000 |
| Issued | 0.000000 |
| Available for issuance | 5,000.000000 |
| Policies | Transferable |
| Terms | (No document) |

Asset logo

(No logo)

Sale details

| | |
|-------------|----------------------|
| Name | Yutaka Mansions |
| State | Open |
| Whitelisted | No |
| Owner | corporate@mail.com |
| Start time | 05 Aug 2019 18:45:00 |
| End time | 06 Sep 2019 12:00:00 |

Sale logo



BTC progress

| | |
|-------------------|-----------|
| Price (per REIT) | 1.000000 |
| Current cap | 0.000000 |
| Total current cap | 0.000000 |
| Hard cap | 20.000000 |

CHF progress

| | |
|-------------------|----------------|
| Price (per REIT) | 1.000000 |
| Current cap | 0.000000 |
| Total current cap | 0.000000 |
| Hard cap | 200,000.000000 |

GLD progress

| | |
|-------------------|---------------|
| Price (per REIT) | 1.000000 |
| Current cap | 0.000000 |
| Total current cap | 0.000000 |
| Hard cap | 61,919.504644 |

USD progress

| | |
|-------------------|----------------|
| Price (per REIT) | 1.000000 |
| Current cap | 0.000000 |
| Total current cap | 0.000000 |
| Hard cap | 200,000.000000 |

Total progress

| | |
|----------------------------|--------------------|
| Current cap | 0.000000 USD |
| Soft cap | 100,000.000000 USD |
| Hard cap | 200,000.000000 USD |
| Max REIT amount to be sold | 5,000.000000 REIT |

Short description

Most investors buy REITs for their rich dividends, although those dividends are usually fully taxable. Keep in mind, though, that each real estate sector is affected by different economic cycles. Larger, diversified, or geographically dispersed REITs are



Trade requirements for administrator

- As an **administrator**, I want to be able to **add asset pair** to the list of those available for trading.
- As an **administrator**, I want to be able to **enable / disable asset pair** in the list of those available for trading.

| Asset pairs | | | + Create pair | |
|-------------|--------------|--------|-------------------------------|--|
| | Price | Policy | | |
| ARTD/USD | 1.000000 USD | 0 ? | | |
| BST/BTC | 1.000000 BTC | 0 ? | | |
| BST/CHF | 1.000000 CHF | 0 ? | | |
| BST/USD | 1.000000 USD | 0 ? | | |

Security requirements for administrator

- As an **administrator**, I want to be able to **view the details of user accounts**.
- As an **administrator**, I want to be able to **monitor users actions** on the platform to detect security policy threats.
- As an **administrator**, I want to be able to **ban user accounts** to comply with platform security policy.
- As an **administrator**, I want to be able to **unban user accounts** to restore user access to platform services.



User details

Account information

| | |
|---------------|---|
| Email | corporate@mail.com |
| Account ID | GBZNAXDKJW6PFJLBXJUZZLLVDF2GII2UCWWBW5FF33UBWBYZGZ... |
| Account role | Corporate |
| Account state | Active |

An error occurred. Please try again later.

Corporate user details

| | |
|--------------|-------------------|
| Name | TokenD |
| Headquarters | Kharkiv |
| Homepage | https://tokend.io |
| Industry | IT |
| Team size | 50 |
| Company | TokenD |

Block user

Reset to unverified

Operations

| Type | Date | Source | Counterparty |
|------------------|-------------------------|-----------------------------|--------------|
| Manage asset | 10 Jun 2019 at 06:15:33 | GBZNAXDKJW6PFJLBXJUZZLLV... | - |
| Check sale state | 20 May 2019 at 06:04:33 | Master | - |

Applications requirements

User

- As a **user**, I want my wallet to **store all transactions associated with my account**.
- As a **user**, I want to be able to **manage my account and assets via web application**.
- As a **user**, I want to be able to **manage my account and assets via mobile wallet**.



TOKEND

- As a **user**, I want to be able to **access my wallet from any device at any time** convenient for me.
- As a **user**, I want to be able to **restore access to my account** in the case my password is lost.
- As a **user**, I want to be able to **log out** of the platform.

Corporate user

- As a **corporate user**, I want to be able to **use an offline device to generate keys for pre-issuance** as well as to **encrypt / decrypt them**.
- As a **corporate user**, I want to be able to **create tokenized asset pre-issuance file on offline device** to ensure higher security level.

Administrator

- As an **administrator**, I want to be able to **manage operations via web application**.
- As an **administrator**, I want to be able to **log out of the platform**.
- As an **administrator**, I want to be able to **generate keys file on offline device**.
- As an **administrator**, I want to be able to **log in on offline device with password**.
- As an **administrator**, I want to be able to **create pre-issuance file on offline device**.
- As an **administrator**, I want to be able to **review details of pre-issuance file on offline device**.
- As an **administrator**, I want to be able to **log out of an offline application**.

Ledger synchronization requirements



TOKEND

- As a **platform owner**, I want to be able to perform the **initial configuration of the platform** by changing the initialization scripts, namely **to configure the roles of users and administrators of the platform, system assets, trading pairs of assets.**
- As a **platform owner**, I want to be able to **distribute the records history among several parties** with an ability for them to **synchronize in real time.**