

# **TOKENMINT** **BY HORIZEN**

## **TokenMint Platform User Guide**



[www.tokenmint.global](http://www.tokenmint.global)

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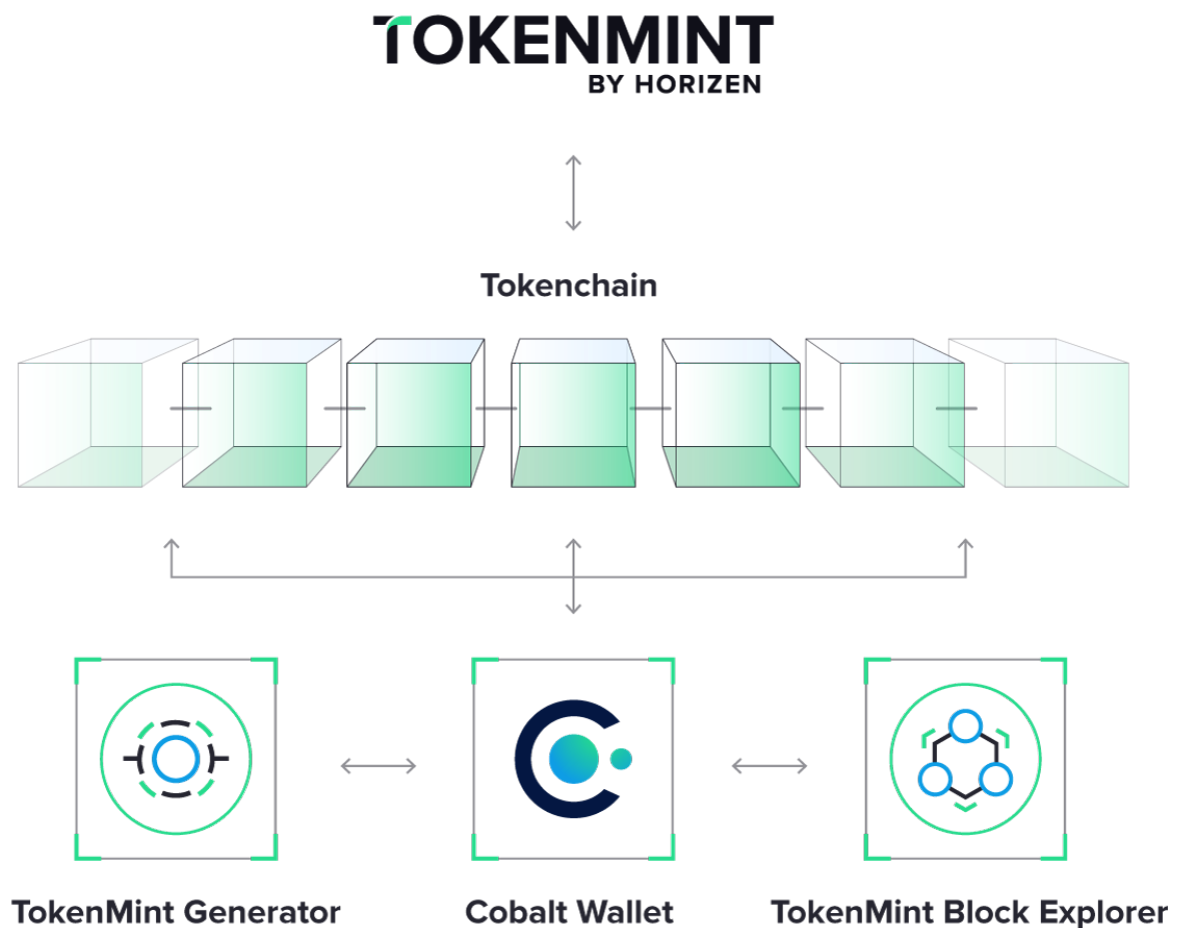
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## What is TokenMint?

TokenMint is a collection of tools that allows you to issue tokens or assets representing value or having a particular token utility. The Tokenchain (*our platform's dedicated sidechain*) ledger serves as a transparent, tamper-proof store of the history of token transactions.

The TokenMint platform is one of the products built on the Horizen network and allows you to easily and independently declare your own utility tokens and mint them.

### Components of TokenMint





## **Tokenchain**

Using the Tokenchain allows you to mint new tokens. Set a maximum number of initially created tokens and burn tokens after minting before you define your tokens by declaring a new token type.

## **Cobalt Wallet**

The Cobalt Wallet is a web browser extension (Chrome and Brave) that can generate and restore wallets from the Tokenchain and safely store private keys. Cobalt Wallet shows multiple fungible tokens, a ZEN account balance, and a transaction history for the related Tokenchain wallets. Cobalt is also capable of connecting to the Token Generator web page to read and recognize token transactions. The primary purpose of the wallet is to send and receive fungible tokens. Tokens will be minted and reflected in the wallet through the TokenMint Generator.

## **TokenMint Generator**

ZEN holders can start a token project, declare, and mint new tokens using the TokenMint Generator. The Cobalt Wallet is responsible for storing the addresses and signing the transactions.

## **TokenMint Block Explorer**

The TokenMint Block Explorer has a backend application that provides access to the Tokenchain sidechain to any frontend application (such as the Cobalt Wallet, the Block Explorer UI for mainnet, etc.) that requires it.

The TokenMint Block Explorer also has a frontend application, which is a monitoring tool that displays multiple tokens and recognizes new tokens as they are created.

# **Technical Support**

Send us your technical questions about the TokenMint Platform to [info@horizen.io](mailto:info@horizen.io).

You can also request [Technical Support](#).

## Using the Cobalt Wallet

Welcome to the Cobalt Wallet! Once you've created your account, your Cobalt Wallet will display your ZEN account balance, its transaction history, and let you perform sending and receiving fungible tokens.

### Getting Started

Welcome to the Cobalt Wallet user guide! Cobalt Wallet displays multiple fungible tokens, your ZEN account balance, and a transaction history for the related Tokenchain wallets. You use the Cobalt Wallet to send and receive fungible tokens.

**Note:** A **token** is a form of cryptocurrency that represents an asset and **ZEN** is Horizen's native token.

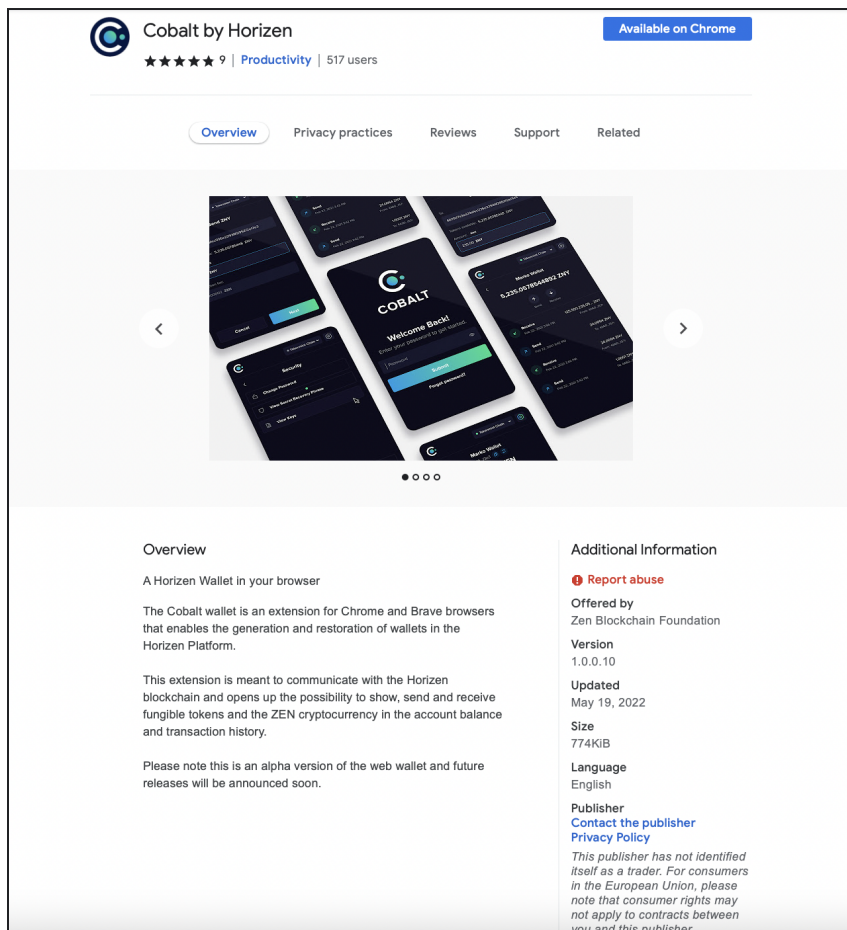
To get started, you will need to first install the wallet. Once installed you will create an account.

## Install the Cobalt Wallet

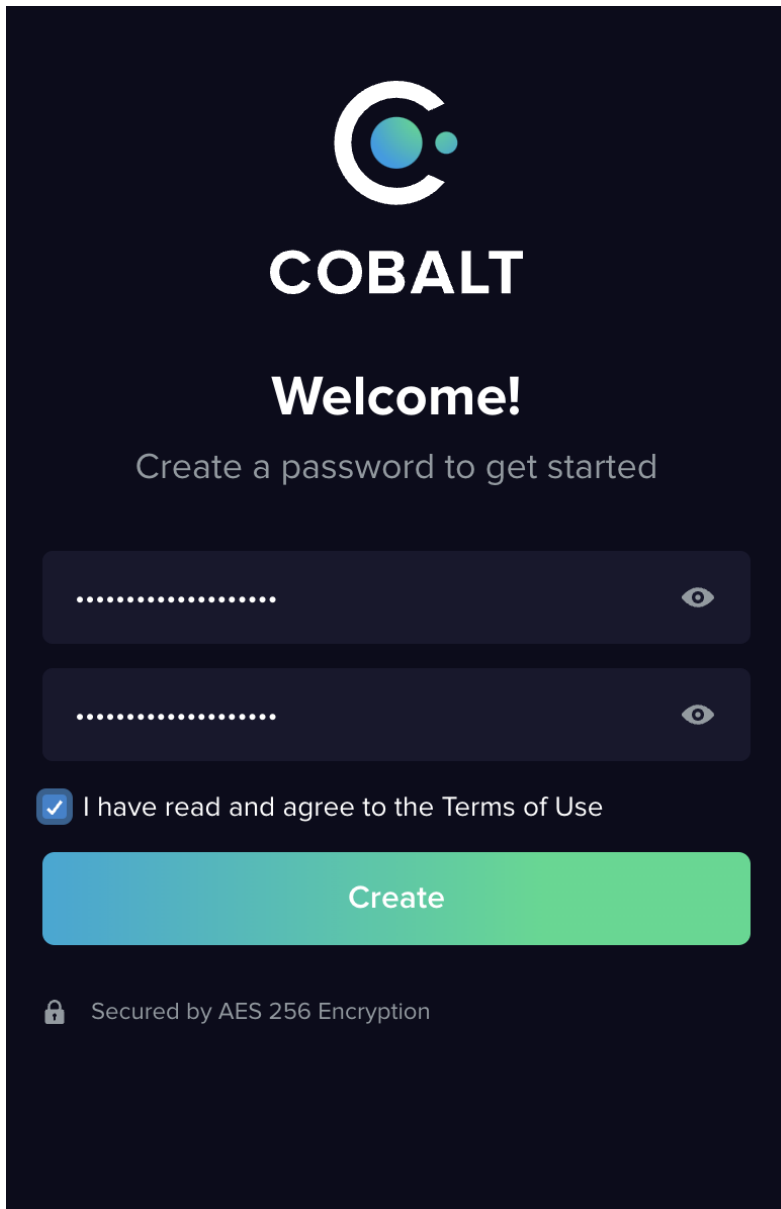
To install the wallet on your Chrome or Brave web browser, perform the steps below:

1. Go to

<https://chrome.google.com/webstore/detail/cobalt-by-horizen/hekbjgfnccadinlajhgiakpaieajpfph> and the Cobalt by Horizen webpage appears.



2. Click **Available in Chrome**.
3. If the **Cobalt Wallet** icon is visible in your browser extensions, then click the icon. Otherwise, click the **Extension** icon and scroll to the Cobalt Wallet icon.
4. Pin the **Cobalt Wallet extension** in your browser.
5. The Token Generator displays a Cobalt Wallet connection. Make sure that the Cobalt Wallet address is correct. The **Cobalt Welcome** page appears.



## Create a Password

To create a password, perform the steps:

**Note:** Before creating your password, adhere to the following:

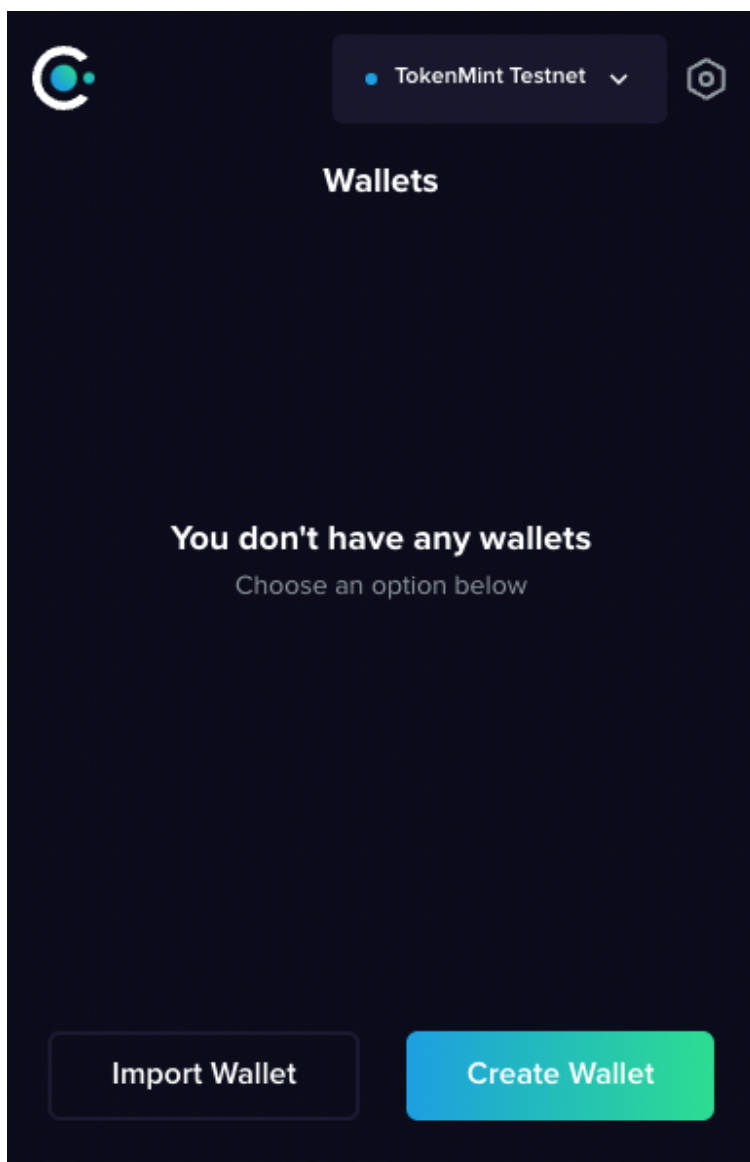
- Make sure the password is equal to or longer than 16 characters
- No common passwords are accepted i.e: password, 12345 etc.

- Passwords cannot be saved to a keychain, so be sure to make a note of it for future use.
- Your password is needed when sending transactions.

1. Choose a password for your wallet.
2. Confirm your password.
3. Click **I have read and agree to the Terms of Use**.
4. Click **Create**. The **You don't have any wallets** page appears.

## Create a Wallet

Once you have created an account, the **Wallets** page appears where you can create a wallet.



Create a wallet by performing the following steps:

1. Click **Create Wallet**. The Create Wallet page appears.
2. In the **Select Chain** field, the default is: **TokenMint by Horizen**
3. Add a **name** to the wallet. For example, “ZENandNow”.

**Note:** The default network option is **TokenMint by Horizen** which is the *testnet* network of Horizen. Be aware that tokens and tZEN that are in this network can't be used in the *mainnet* network.

**Create Wallet** ✕

Select chain:

TokenMint by Horizen ▾

Wallet name:

ZenandNow Wallet

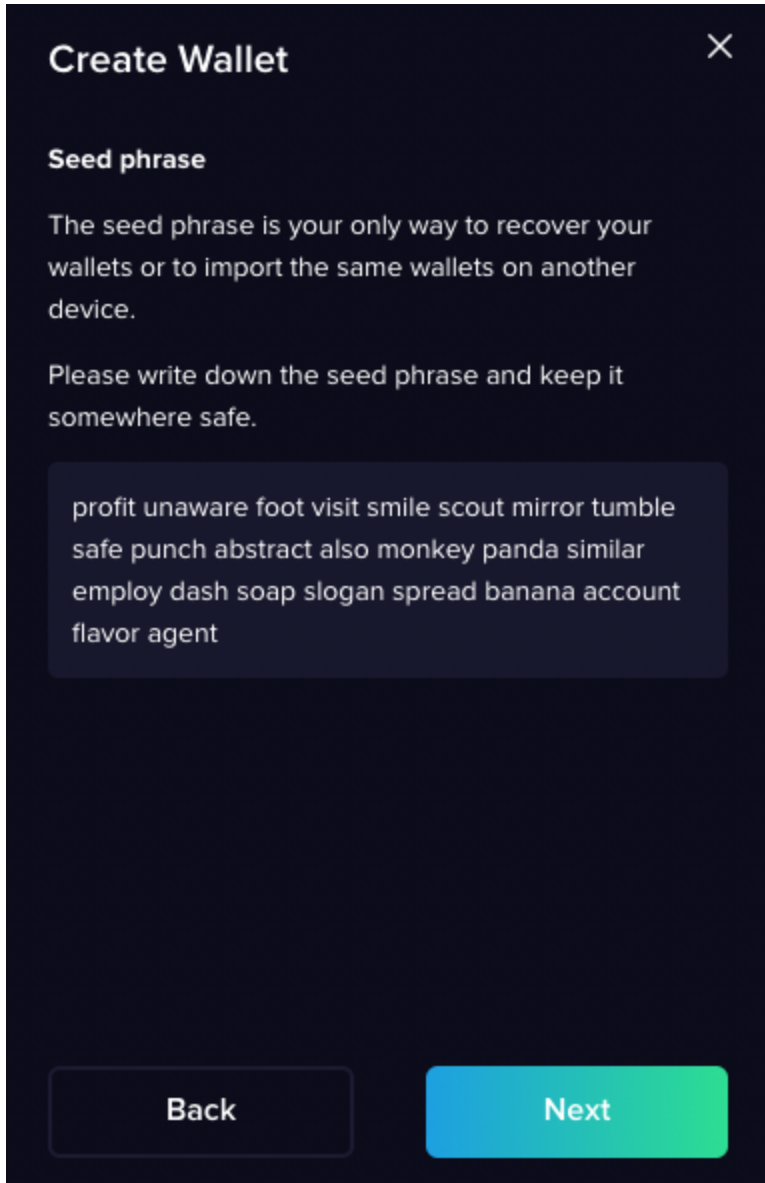
Next

4. Click **Next**. The **Seed phrase** page appears.

### Generating Your Wallet's Seed Phrase

The seed phrase is a series of 24 words generated specifically and uniquely for your wallet. This seed phrase is the **only way to recover your wallet if you ever lose access to it**.

1. Write down your seed phrase. You will need this seed phrase to unlock all of your funds.



2. Click **Next**.

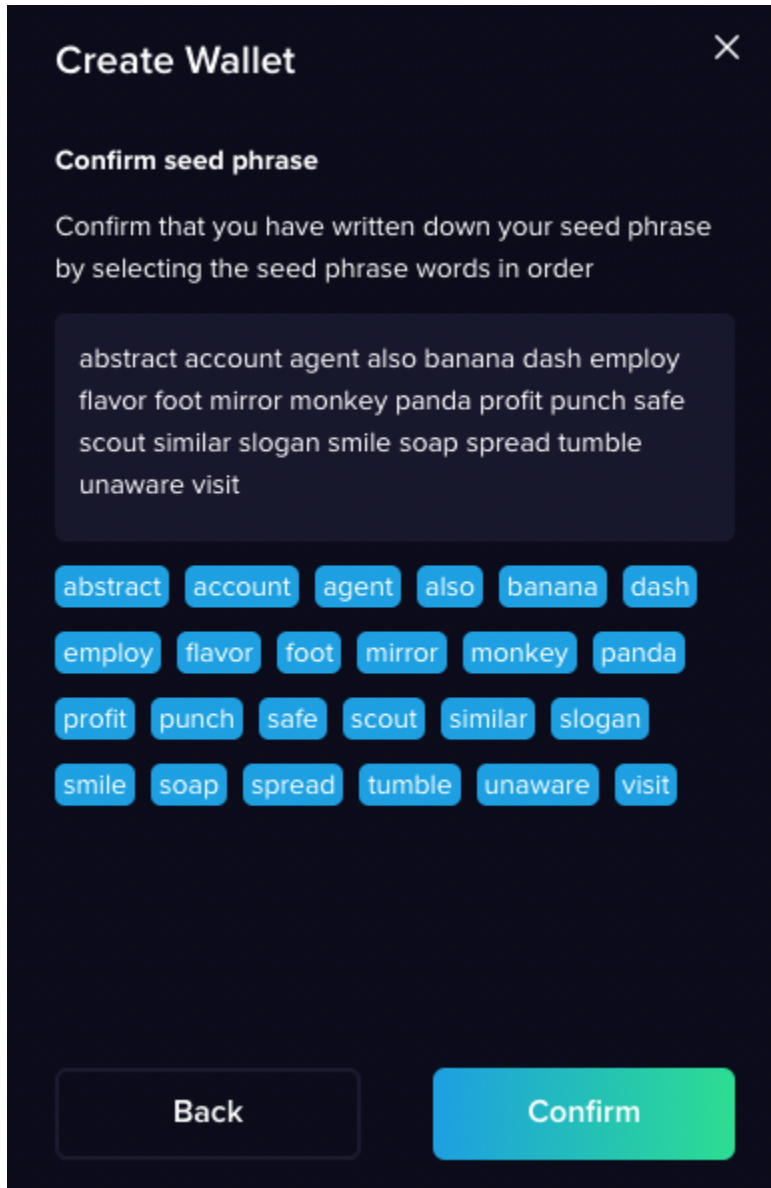


**Important Note:** It is highly recommended that you consider the following:

- Write down your seed phrase and store it in multiple safe places.
- Don't take pictures of your seed phrase.
- Don't save it in files such as: Notepads, third-party owned documents, and the like.

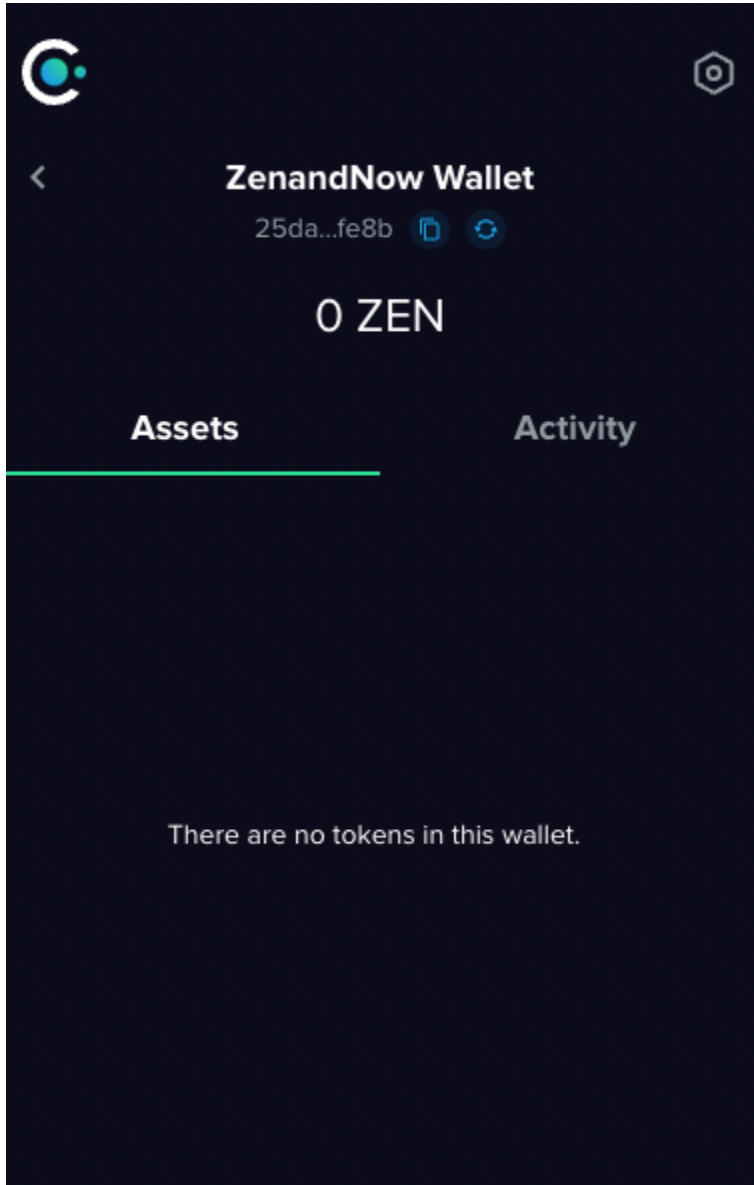
## Confirm Your Seed Phrase

1. Confirm your seed phrase by clicking on the words in the exact order they were listed when you created your seed phrase.



2. You can unselect words from the input line by clicking on the selected word.

3. When complete, click **Confirm**. Your empty wallet will appear on the **Assets and Activity** page.



## Assets, NFTs, and Activity Tabs

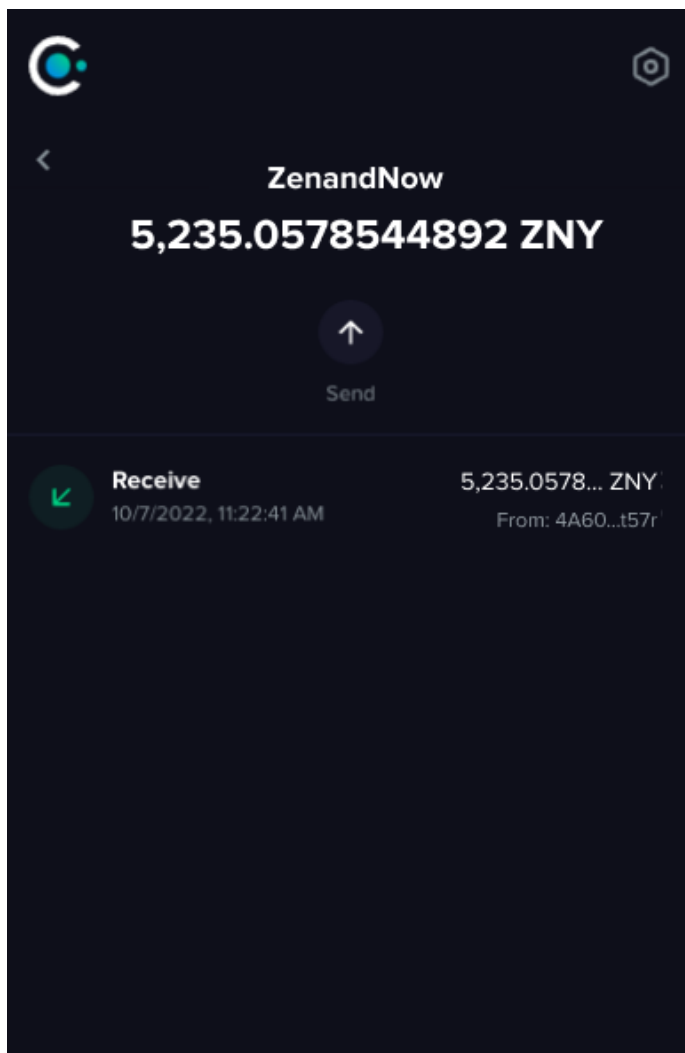
The current balance of ZEN in your Cobalt Wallet appears below the wallet's name.

### Assets Tab

The **Assets** tab displays a list of assets/tokens in your wallet along with the associated balance.



You can click on the desired asset/token to view its specific activity, which includes sending and receiving information and corresponding wallet addresses.



For additional details of the transaction, click on a specific transaction (**Send** or **Receive**) to display its details. The **TokenMint Block Explorer** appears displaying the **Transaction** page for that specific transaction.

The screenshot displays the 'Transaction' page in the TokenMint Alpha Block Explorer. At the top, there is a navigation bar with the TokenMint logo, an 'All Filters' dropdown, a search bar, and links for 'Status', 'TokenMint Chain', 'Tokens', and 'NFTs'. The main heading is 'Transaction', followed by the transaction ID: 1c0a85a6ae7ba0de997b67616495c6ea11b053ac58cfa3082f1728e4cf4ef15. Below this is a 'Summary' section with a table of transaction details:

Field	Value
Timestamp	989 hours and 48 minutes ago (Aug 11, 2022 04:41:30 PM)
Status	Confirmed
Block	39d8156666b9b87a3cb0198...69e2a25a2e52071cfb63683 (15903 confirmations)
Transaction Fee	0.000002 ZEN
Amount	1 TST3
Transaction type name	TokenFungibleTransfer

Below the summary is an 'Input Boxes' section with another table:

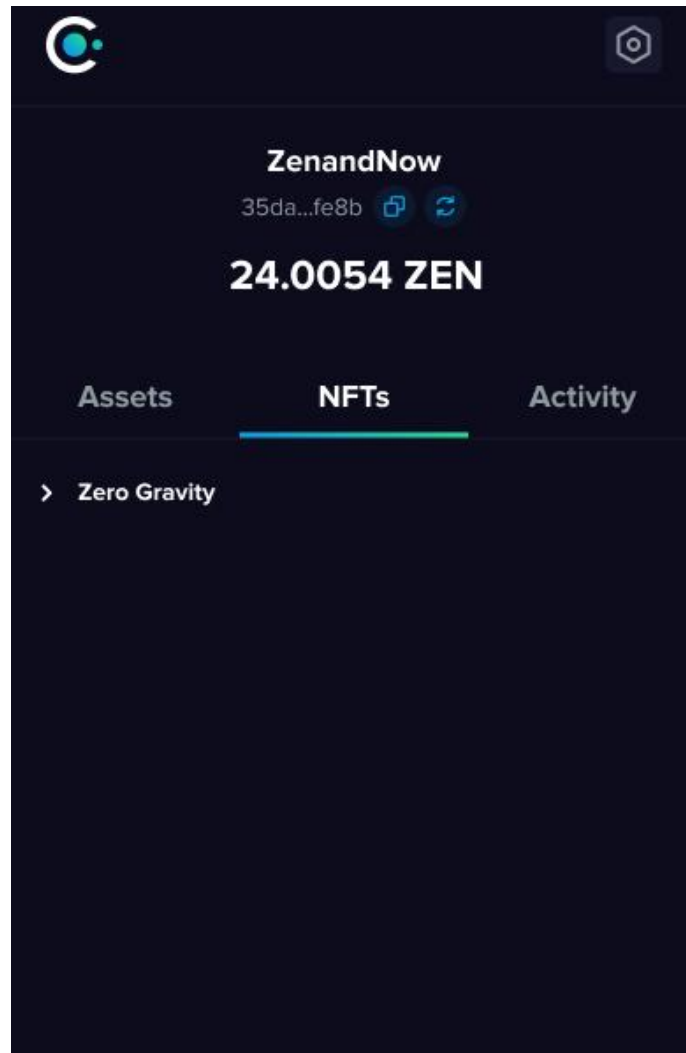
Field	Value
TokenFungible	
Box ID	4c1c945936dc7ad205cf918dbfba34cf0930b3813fba4e91aca3ca9fad559c79
Address	6985d447b0fblaf93d8348976cceccec95747efc8fd04d01131be03f26b344ae
Value	5 TST3

See the <[TokenMint Block Explorer User Guide](#)> for usage and detailed information.

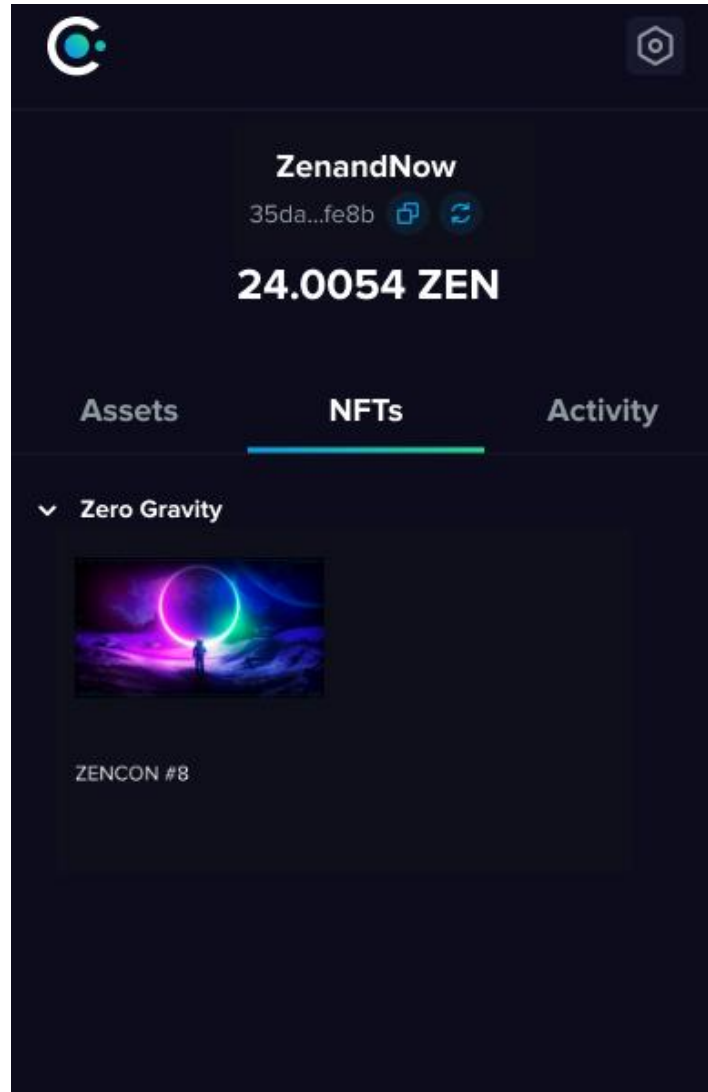
## NFTs Tab

The NFTs tab displays a list of NFT collections in your wallet.

**Note:** Not all NFTs are created with images.

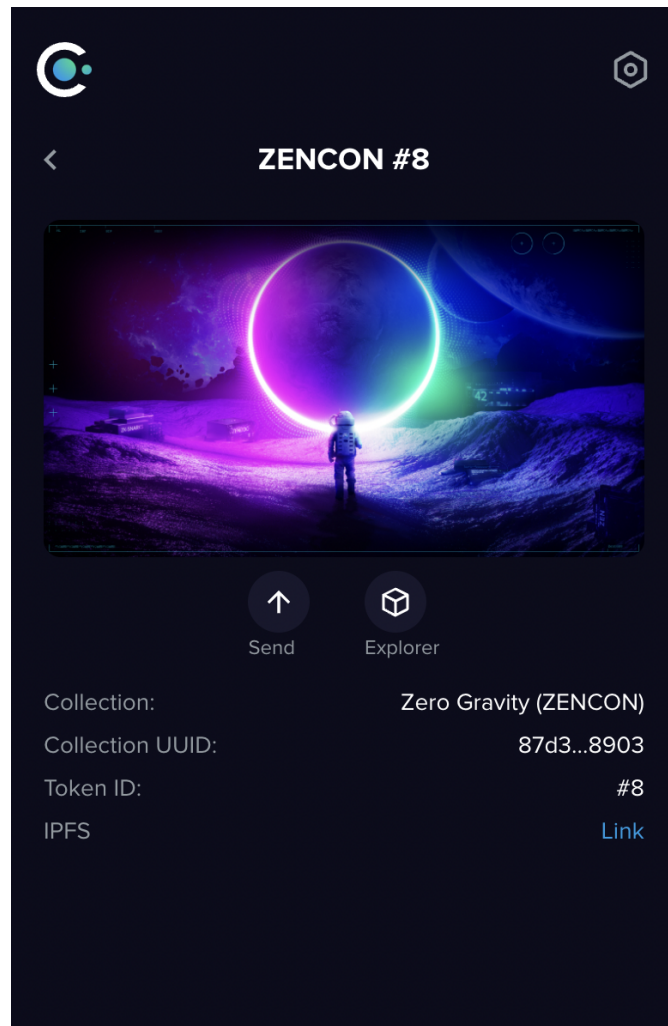


You can view the details of a specific NFT collection by clicking on its name.



For additional details of the NFT, click on NFT's image. If there is no image, then click on the placeholder for the image. The specific NFT detail information appears along with the options to either send an NFT and/or review its details in the **TokenMint Block Explorer**.





The specific NFT page includes the following:

**Send** - Click the **Send** icon to send an NFT. See [Receive and Send NFTs](#) for details on receiving and sending NFTs.

**Explorer** - Click the **Explorer** icon to view the NFT details in the **TokenMint Block Explorer**.

**Collection** - The name of the collection that the NFT belongs to.

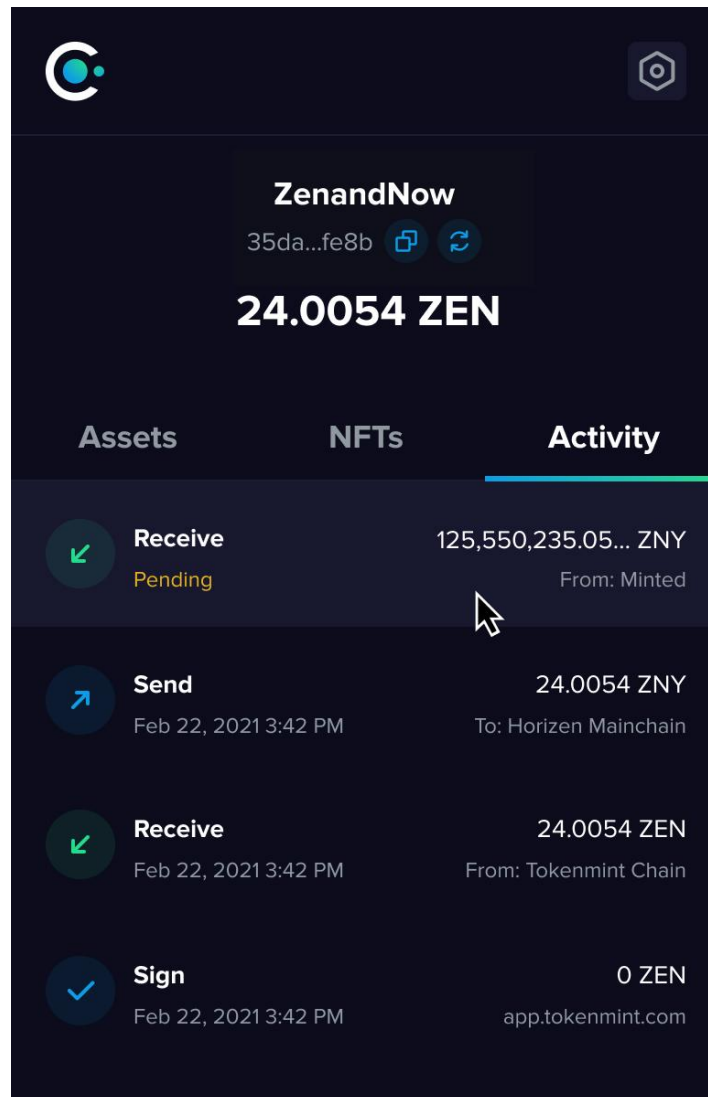
**Collection UUID** - The unique identifier for the collection.

**Token ID** - The token's identifier number.

**IPFS** - The link to the IPFS repository where the NFT image is located.

## Activity Tab

The Activity tab displays the detailed activity of tokens in your wallet such as tokens sent, received, and pending transactions. This tab shows the history of activity starting from the most recent.



For additional details of an NFT or token, click on transaction (Send or Receive). The specific transaction detail information appears in the **TokenMint Block Explorer**.

All Filters
Search by Address / Transaction / Block / Token / NFT

Status
TokenMint Chain
Tokens
NFTs

## Transaction

Transaction ID: 379b5c54ff6b0887b0f31340c41a48e32481c9e038ca655728cf47c724bfca9 QR

### Summary ⓘ

Timestamp	700 hours and 53 minutes ago (Aug 25, 2022 04:51:30 PM)
Status	Confirmed
Block	2aa8bdc2bcf89bbc2441c3...4f79957936e2e3fc60694b5 (11141 confirmations)
Transaction Fee	0.000001 ZEN
Amount	1 ZENCON
Transaction type name	TokenNonFungibleMint

### Input Boxes ⓘ


ZenBox	
Box ID	4f0e1b54b4980da958671a120655fc0cb57a2d69d2cce57a9b3d4a960b42c273
Address	1534591eef63e48b477c846f5c38243d632dcebc24b1fd35b4a0ec609fd00f95
Value	1.79998 ZEN

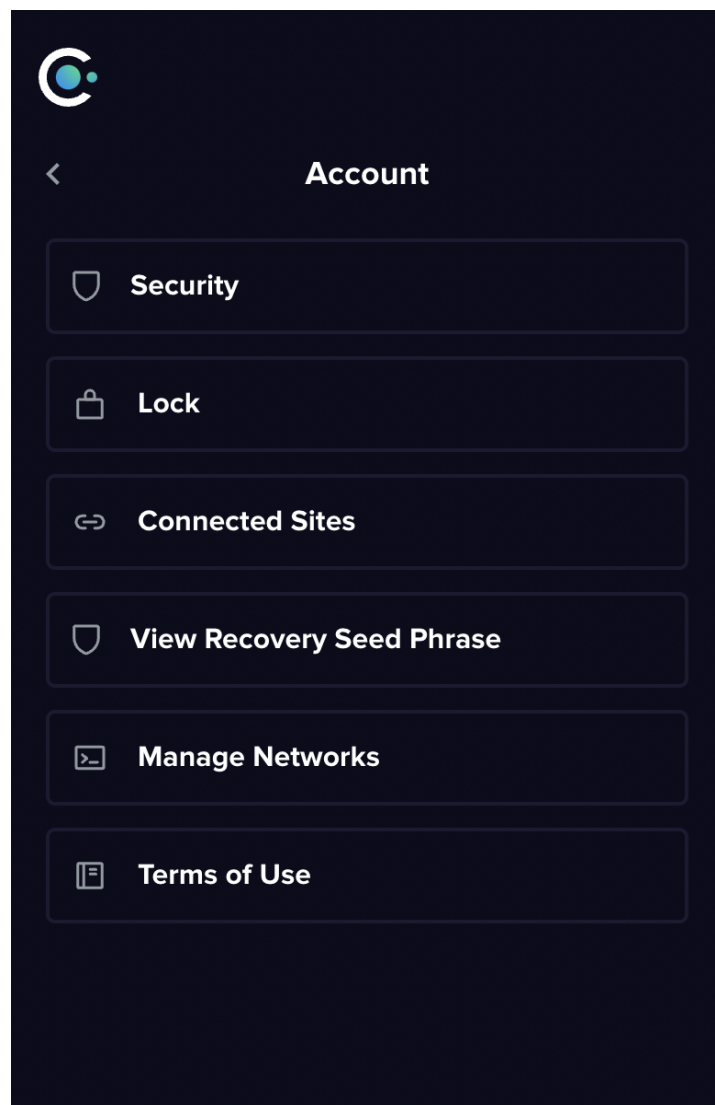
See the [<TokenMint Block Explorer User Guide>](#) for usage and detailed information.

## Account Settings

Cobalt Wallet account settings allow you to:

- View and Copy your wallet's private key
- Lock your wallet
- View the network address connected to your wallet
- View your recovery seed phrase
- Manage your networks
- Read the terms of webpage

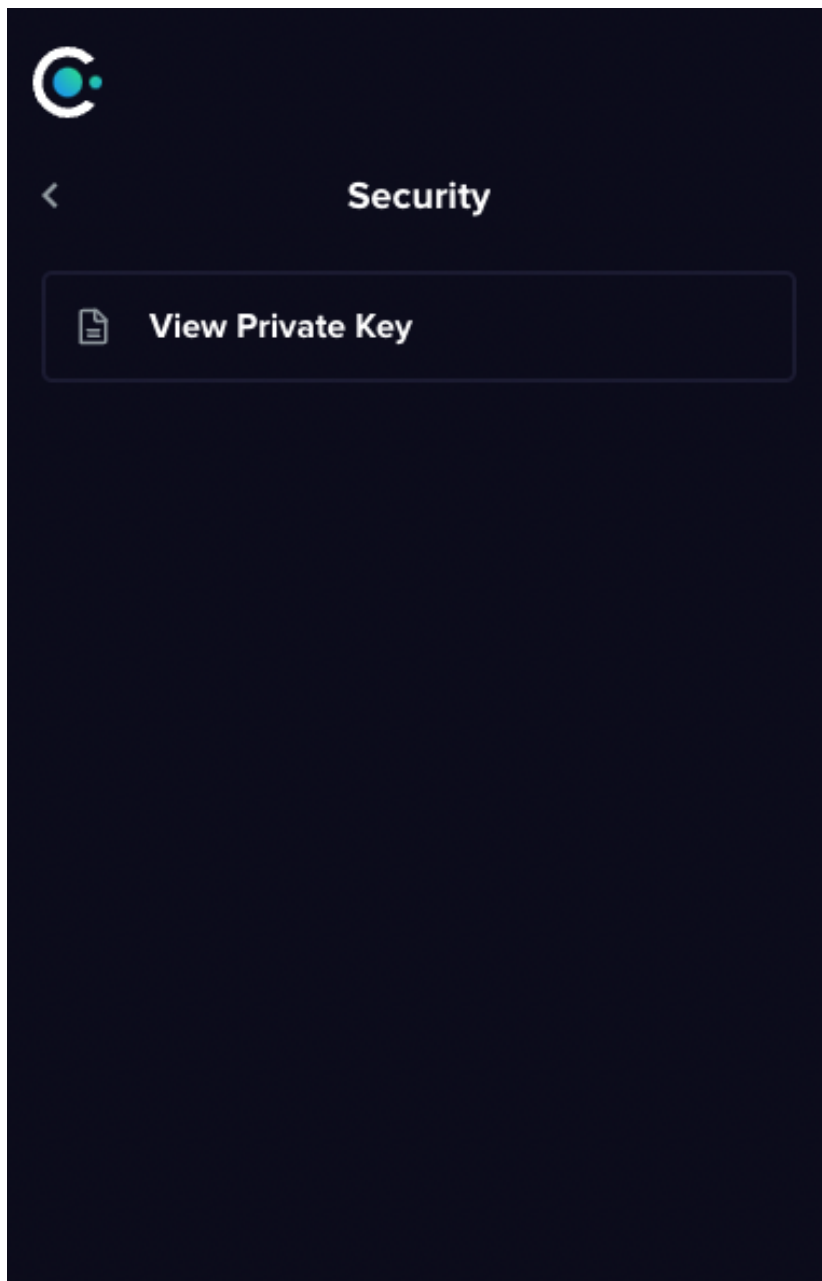
Click on the the **Account** icon  in the right corner of the page to display the **Account** menu:



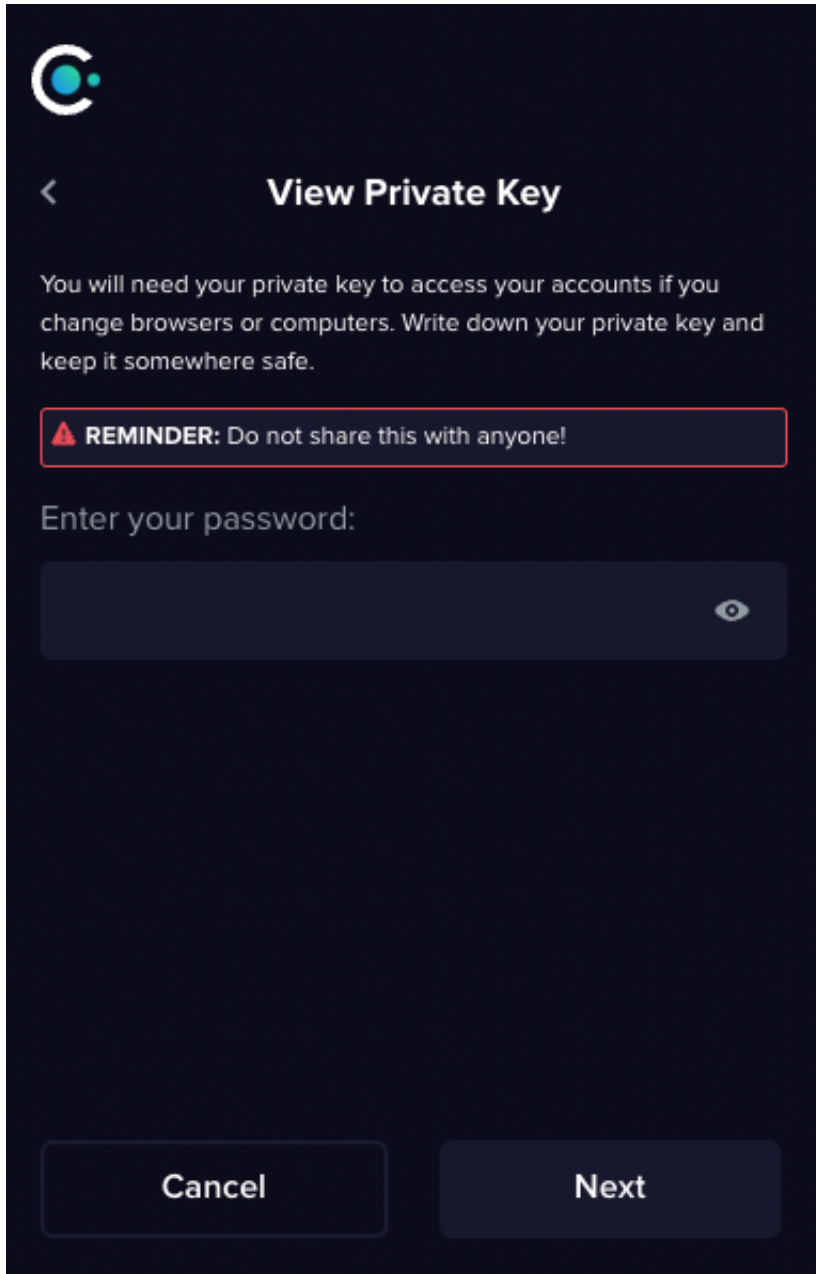
## View and Copy Wallet's Private Key

Cobalt Wallet allows you to view and copy your wallet's private key. You need your wallet's private key if you change your browser or computer.

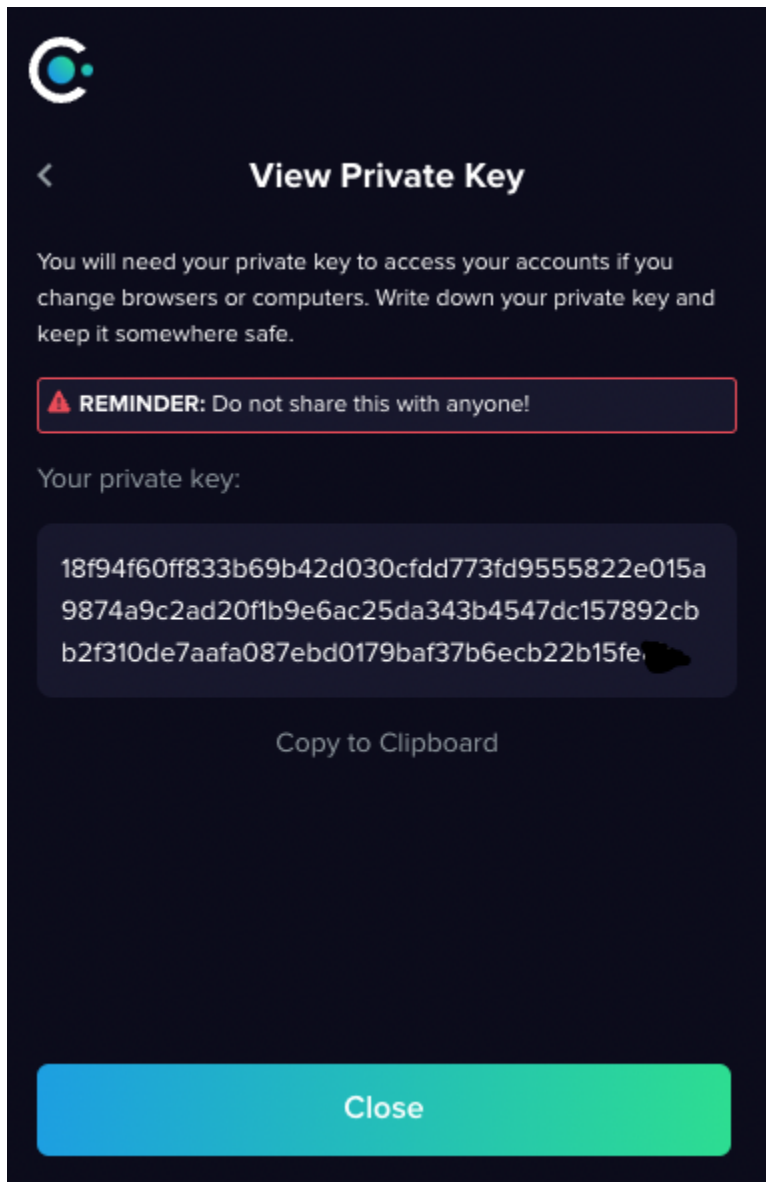
1. In the **Account** menu, click **Security**. The **Security** page appears.



2. Click **View Private Key**. The private key is used to access your account. It is highly recommended that you copy your private key and keep it in a safe place.



3. Enter your **password** to access your private key. Click **Next**.



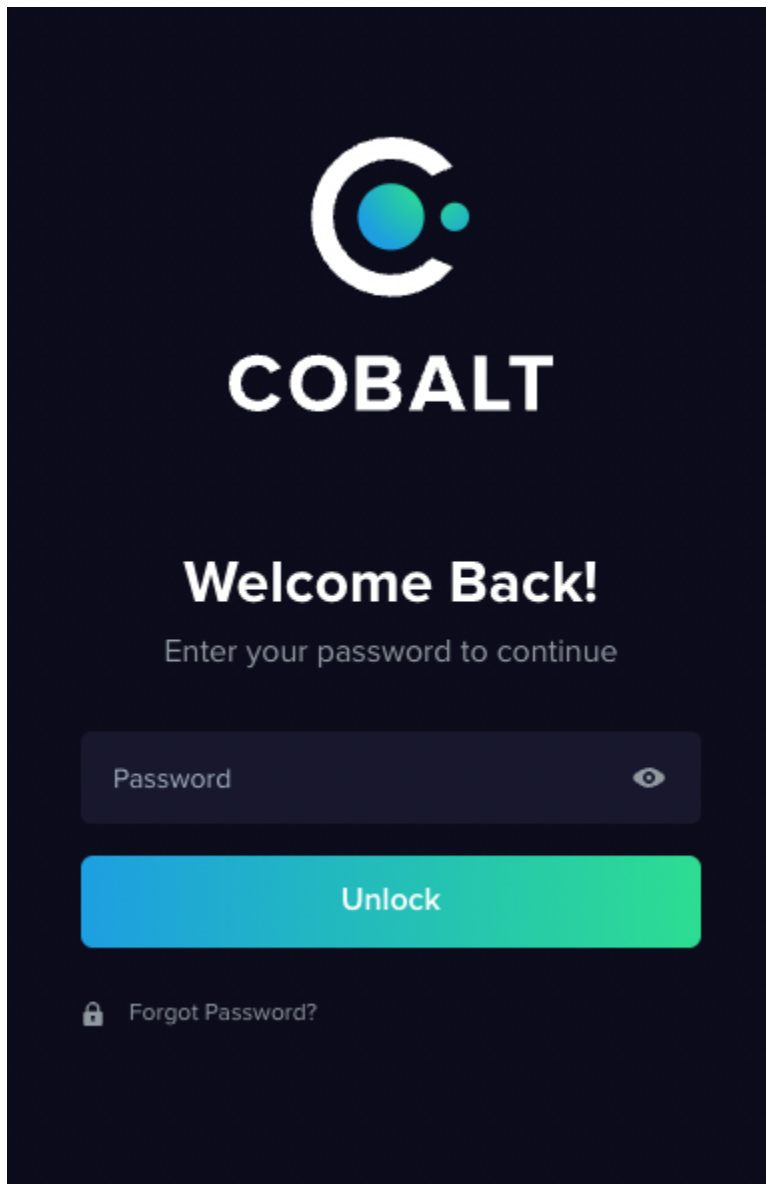
4. Optionally, click **Copy to Clipboard** to copy your private key and paste it into a new browser window.



## Lock your Wallet

Cobalt Wallet allows you to lock and unlock your wallet. You lock your wallet for security reasons.

1. In the **Account** menu, click **Lock**. Your wallet is locked. The **Welcome Back!** page appears.

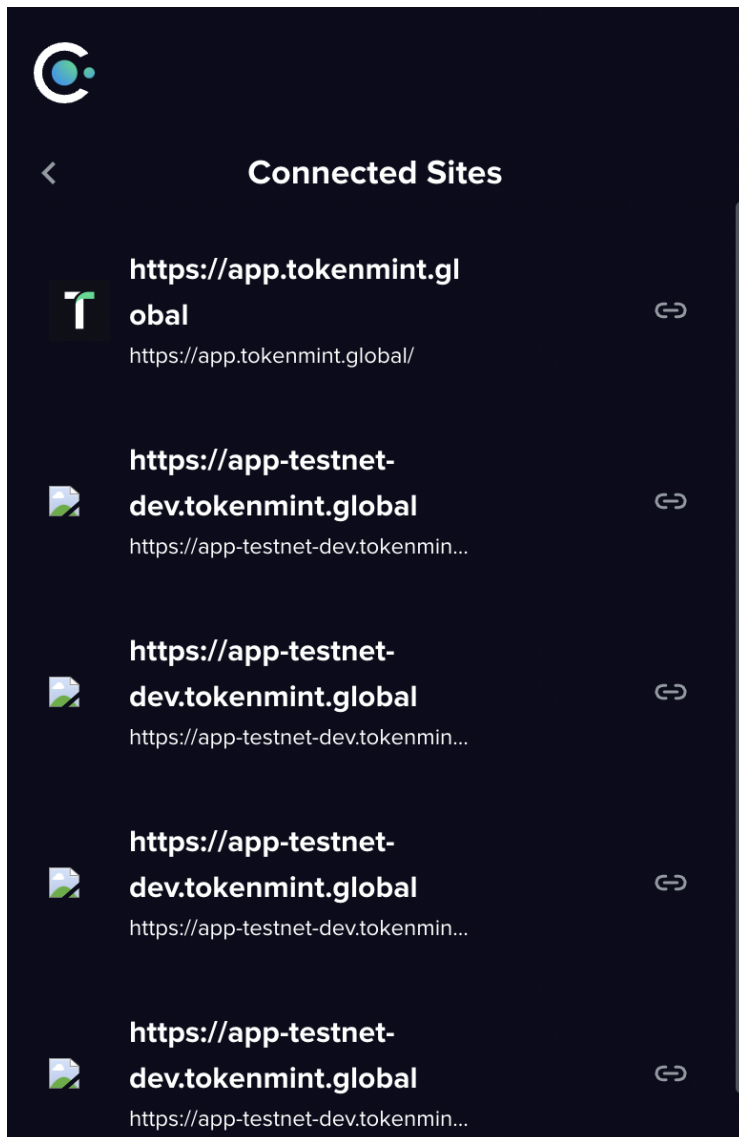


2. Enter your **password** and click **Unlock** to unlock your wallet.

## View your Connected Sites

Cobalt Wallet displays the network addresses that are connected. You can disconnect to a network address if desired.

1. In the **Account** menu, click **Connected Sites**. A list of connected network addresses is displayed.



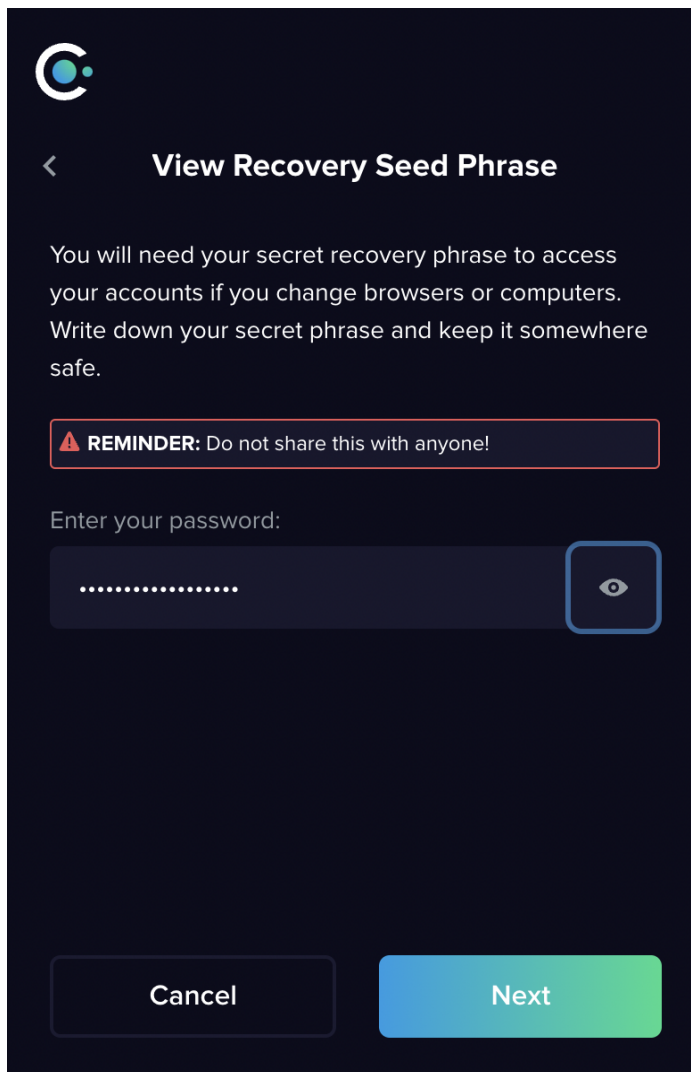
2. If desired, you can delete a network address by hovering your cursor over the chain icon, where a **Disconnect** button appears. Click the button to delete the address.



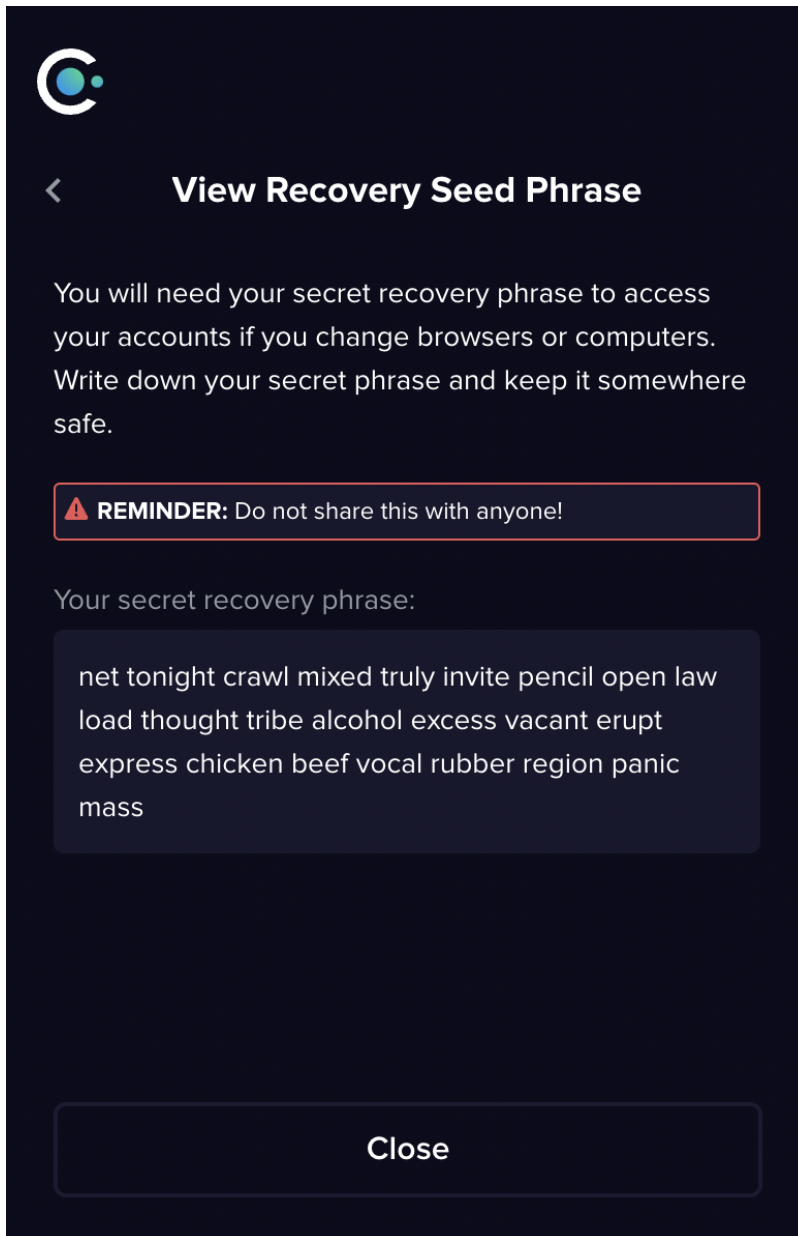
## View your Recovery Seed Phase

Cobalt Wallet displays your recovery seed phase if you change your browser or computer.

1. In the **Account** menu, click **View Recovery Seed Phrase**. The **View Recovery Seed Phrase** page appears.
2. Enter your **password** to access your secret recovery phrase. Optionally, you can click on the eye icon to show the keyboard characters that you are entering for your password. Click **Next**. Your secret recovery phrase is displayed.



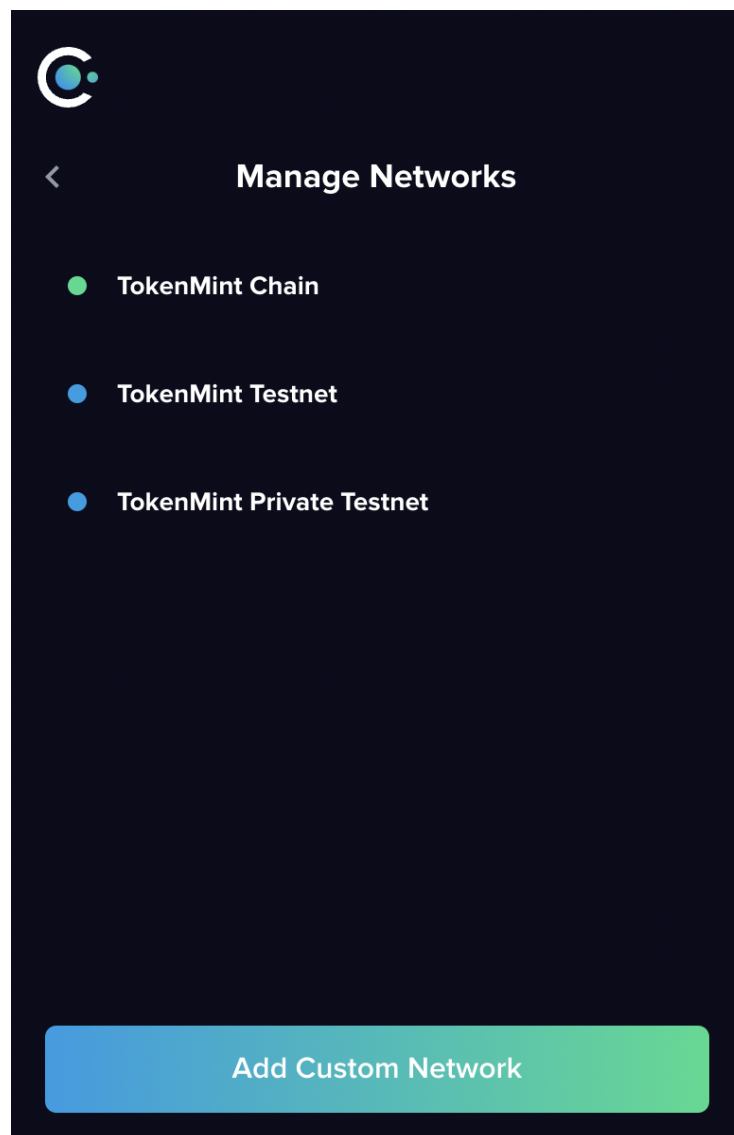
3. After writing down your secret recovery phrase, click **Close**.



## Manage your Networks

Cobalt Wallet displays the networks connected to your wallet. You can add a new network if desired.

1. In the **Account** menu, click **Manage Networks**. A list of networks is displayed. These are the networks currently associated with your wallet.



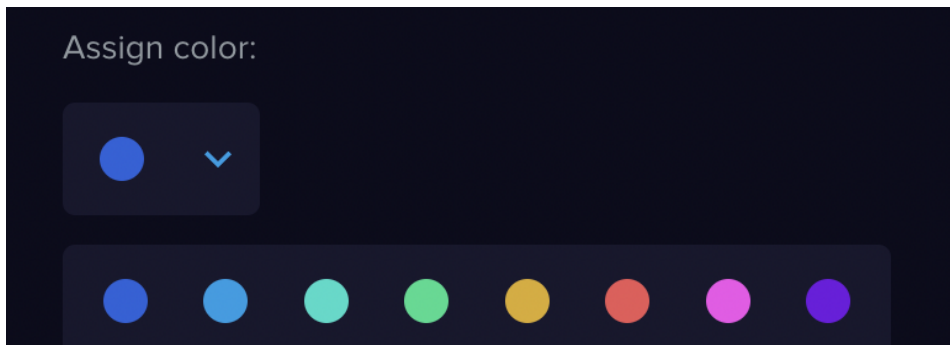
2. Click **Add Custom Network** to add a new network. The **Add Custom Network** page appears.

The screenshot shows a dark-themed mobile application interface for adding a custom network. At the top left is a circular logo with a blue and green dot. Below it is a back arrow and the title 'Add Custom Network'. The form consists of several sections: 'Name:' with a text input field containing 'MyNetwork'; 'Type:' with a dropdown menu showing 'private-testnet'; 'Block Explorer backend URL:' with a text input field containing 'https://explorer-testnet-dev.tokenmint.globa'; 'Block Explorer frontend URL:' with a text input field containing 'https://explorer-testnet-dev.tokenmint.globa'; and 'Assign color:' with a dropdown menu showing a blue circle. At the bottom are two buttons: 'Back' and 'Submit'.

3. In the **Name** field, enter the name of your new network. Use only alphanumeric characters.
4. In the **Type** field, use the drop-down menu to select the desired network type.
5. In the **Block Explorer backend URL** field, enter the URL address for the **Indexer**.
6. In the **TokenMint Block Explorer** field, enter the URL address for the **TokenMint Block Explorer**.

**Note:** The Block Explorer backend application is called the **Indexer**, while the frontend application is called the **TokenMint Block Explorer**.

7. In the **Assign color** field, use the drop-down menu to select a color for your new network. The color helps you quickly identify your network from the rest of the networks in the list.



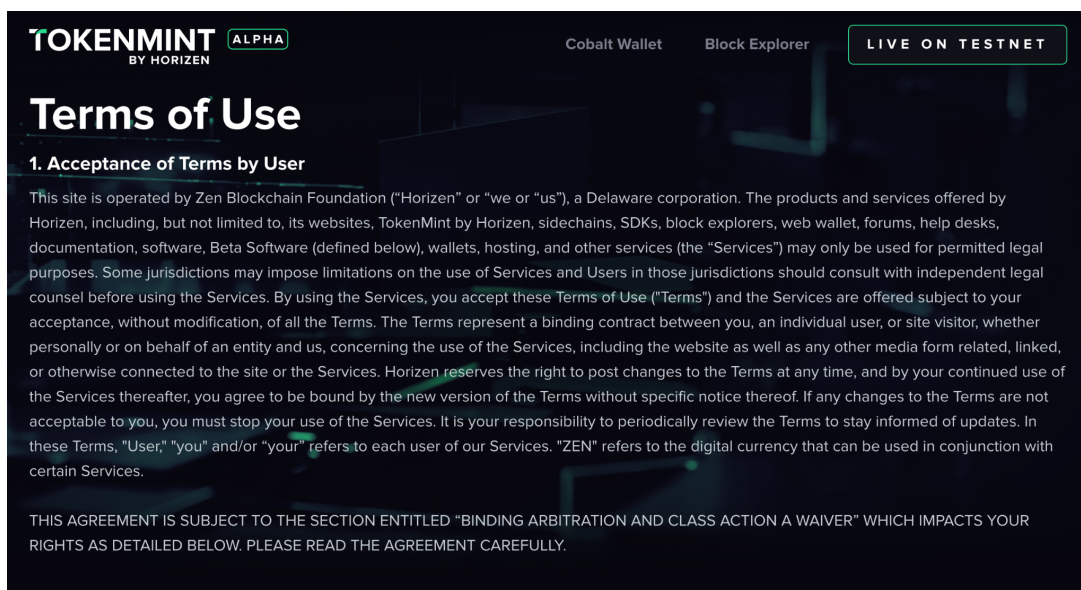
8. Click **Submit**.



## Read the Terms of Use

Cobalt Wallet redirects you to the Terms of Use webpage. This page contains the term usage, legal information, and user restrictions required to use the Cobalt Wallet.

1. In the **Account** menu, click **Terms of Use**. The **Terms of Use** webpage appears.



2. You must carefully read and understand the information contained in the **Terms of Use** and accept.

## Import a Wallet

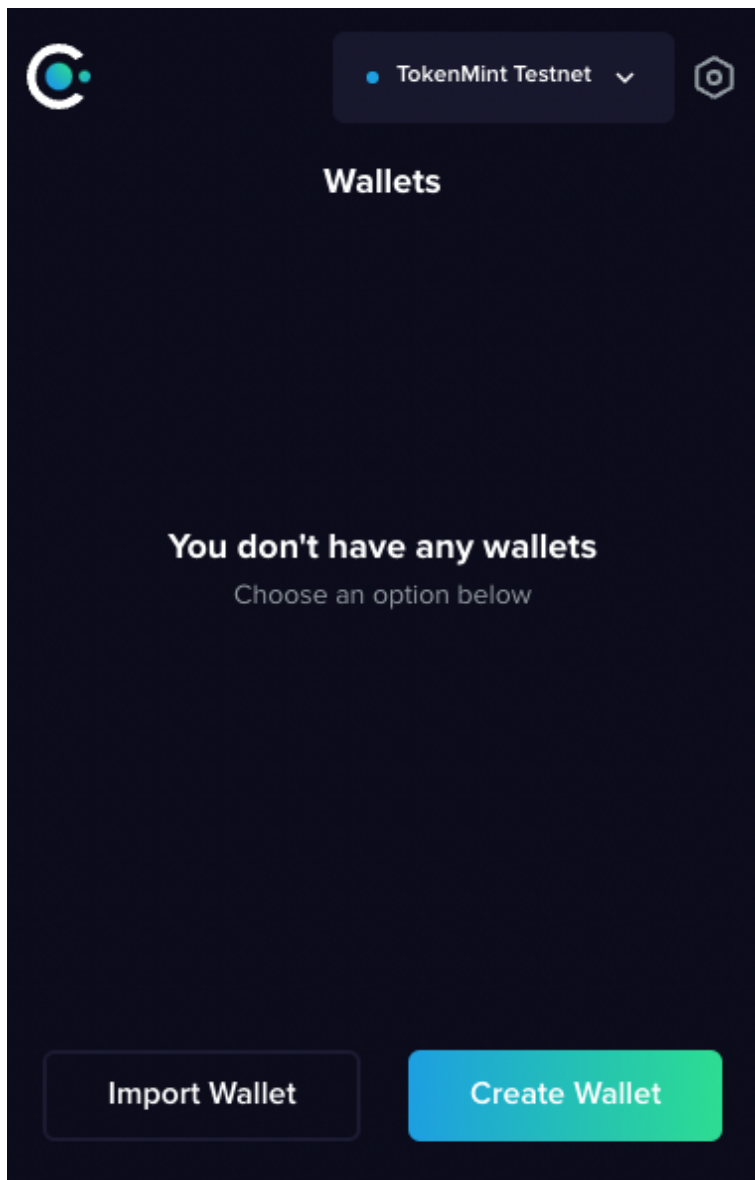
You can restore a previously created wallet by using the **Import Wallet** option. To restore your wallet, you need to import the seed phrase of the previous wallet.

After installing the Cobalt Wallet, perform the following steps:

1. Create an account.
2. Choose a password for your wallet.
3. Confirm your password.
4. Click **I have read and agree to the Terms of Use**.

The screenshot shows the Cobalt Wallet welcome screen. At the top is the Cobalt logo, a stylized 'C' with a blue and green dot. Below the logo, the word 'COBALT' is written in white, followed by 'Welcome!' in a larger font. Underneath, it says 'Create a password to get started'. There are two password input fields, each with a blue eye icon to toggle visibility. The second eye icon is highlighted with a blue square. Below the fields is a checkbox with a blue checkmark and the text 'I have read and agree to the Terms of Use'. At the bottom is a large green button labeled 'Create'. In the bottom left corner, there is a lock icon and the text 'Secured by AES 256 Encryption'.

5. Click **Create**. The **You don't have any wallets** page appears.



6. Click **Import Wallet**. The **Import Wallet** page appears.

The screenshot shows a dark-themed dialog box titled "Import Wallet" with a close button (X) in the top right corner. Below the title, there are two input sections. The first is labeled "Select chain:" and features a dark dropdown menu with the text "TokenMint by Horizen" and a downward arrow. The second is labeled "Wallet name:" and features a dark text input field containing the text "ZenandNow Wallet". At the bottom of the dialog is a large, rounded rectangular button with a blue-to-green gradient, labeled "Next".

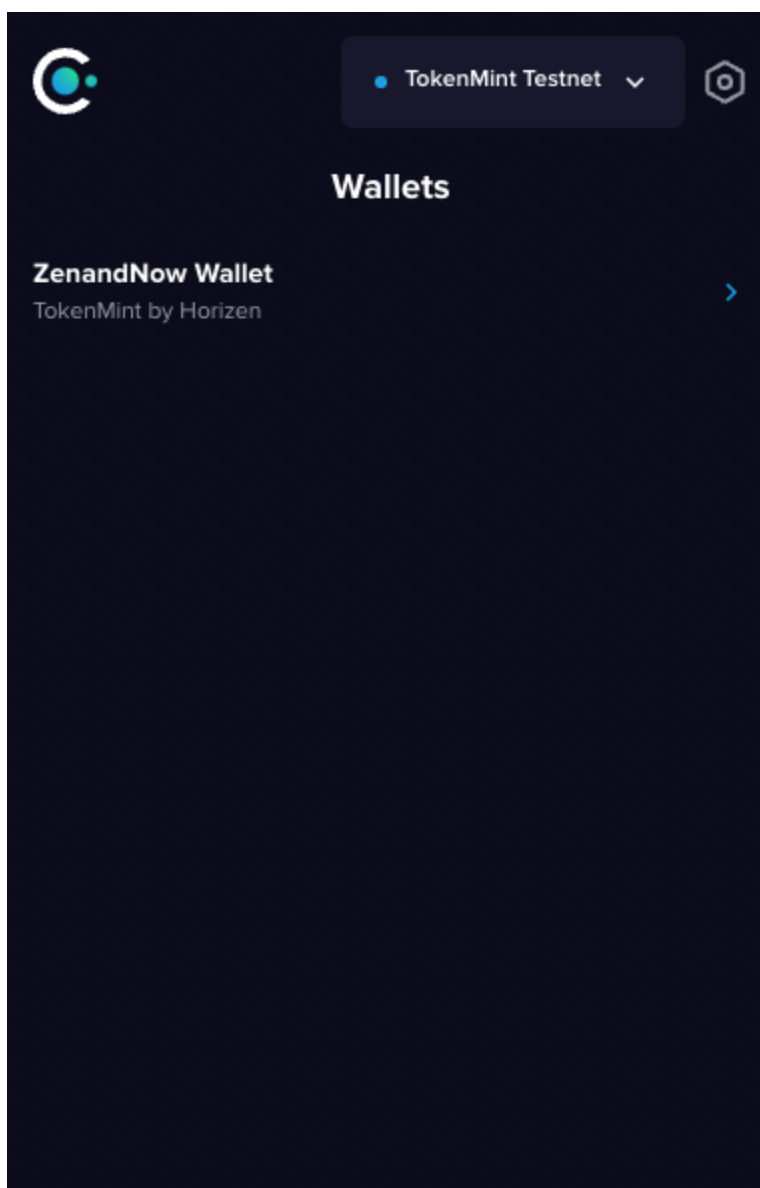
7. In the **Select chain** field, use the pull-down menu to select a chain.
8. In the **Wallet name** field, enter the name of your previous wallet.

- Click **Next**. The **Import Wallet** page now allows you to enter your seed phrase to restore your previous wallet.

The screenshot shows a dark-themed mobile application interface titled "Import Wallet" with a close button (X) in the top right corner. Below the title, the text "Enter seed phrase" is displayed. Underneath, a subtitle reads "Enter your seed phrase to restore your wallet." The main content area consists of eight numbered input fields, labeled "1." through "8.", each followed by a small eye icon to toggle visibility. The fields are currently empty, indicating the user has not yet entered their seed phrase.

- Enter your wallet's 24-word **seed phrase** in its original order.
- Scroll down to enter all words of your seed phrase.


12. Click **Confirm**. Your previous wallet is restored.

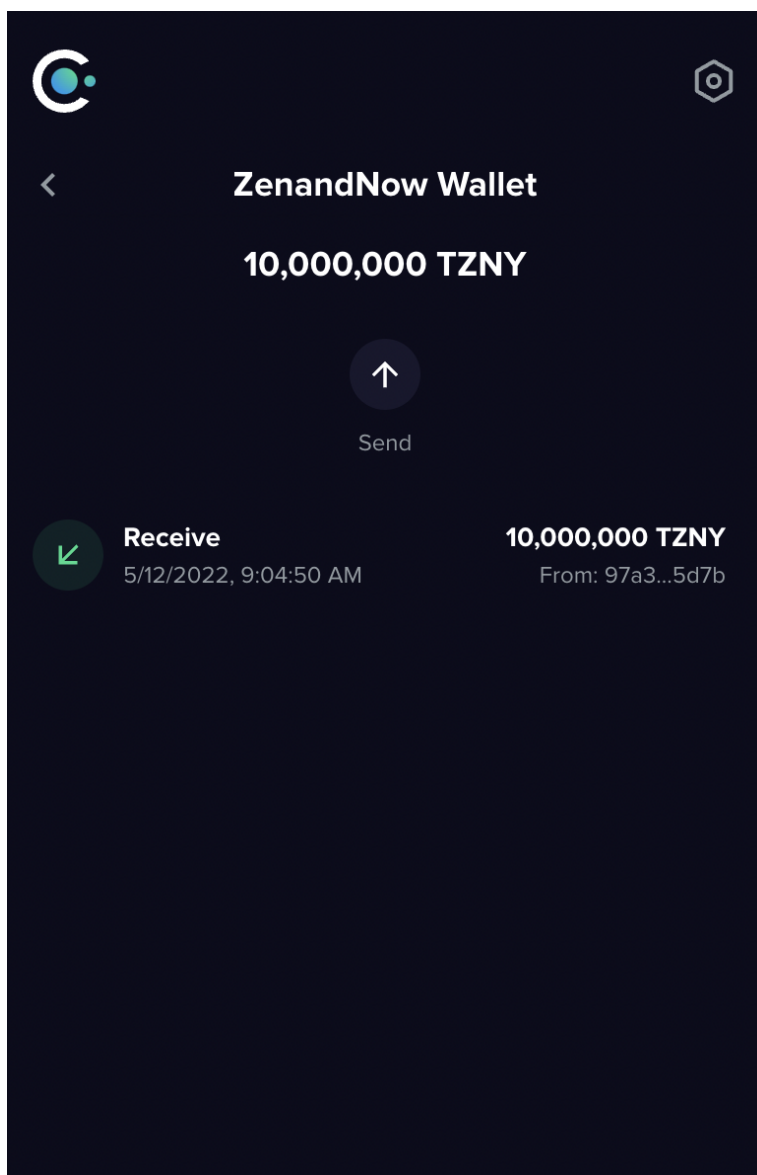


## Receive and Send Tokens

### Receive Tokens

To receive tokens, you must have a prior agreement with the sending party so that you can share your wallet's address. Perform the following steps:

1. Click the **Copy and Paste** icon  in the upper middle section of your wallet.
2. Share this address with the sending party to receive tokens in your wallet.
3. Once you've received your tokens, the **Assets, NFTs, and Activity** page displays the total amount of tokens. Click the **received token** row.

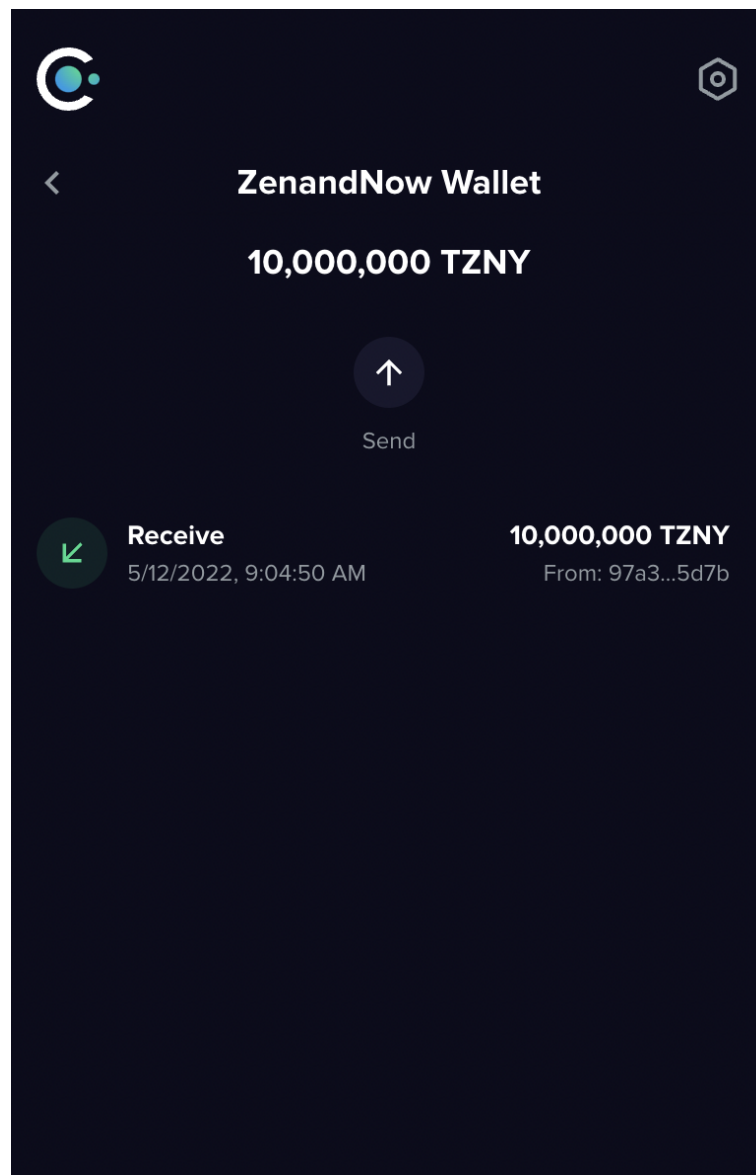


Your wallet displays the following activities:

- Transaction received
- Date and time when the transaction was received
- Number of tokens received
- Name of the token
- The first four and last digits of the address the transaction was sent from

## Send Tokens

1. In the **Assets and Activity** page, select the **token (ZEN)** row. The page now allows you to send tokens. It displays the current amount available.





2. Click the **up arrow** to send a transaction.

Send TZNY Tokens

Send to:

97a309014e0aefb1b23304fc5fe1c3fddc46ec

Tokens available: 10,000,000 TZNY

Amount (TZNY):

50.000000

Transaction fee (ZEN):

0.000002

Enter your password to sign the transaction ⓘ

.....

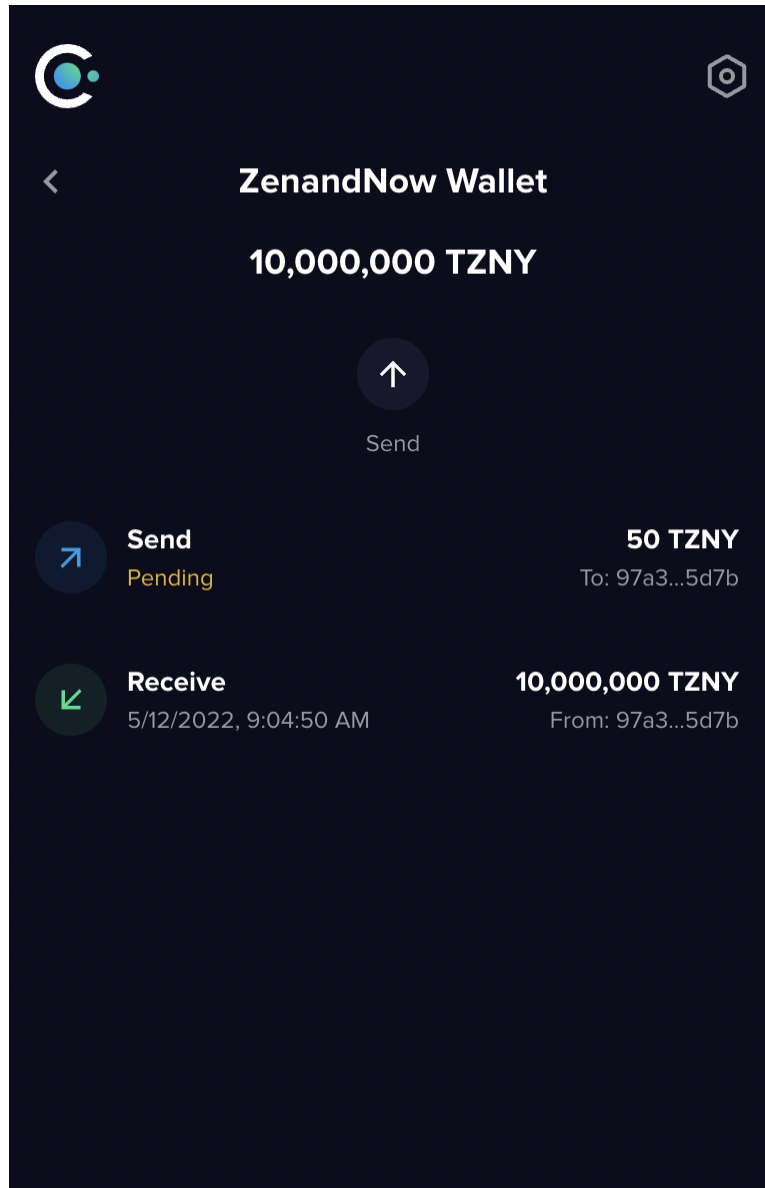
Back Submit

3. In the **Send to** field, enter the desired wallet address you want to send the token to. This field will display an error, if you enter an invalid address.
4. In the **Amount** field, enter the amount of the tokens you want to send.

**Note:** The Transaction Fee field displays the required fee for a token transaction.

5. In the **password** field, enter your password to complete the transaction.

6. Click **Submit**. The Success flag appears to indicate that the transaction is successful and complete.
7. Click **Back** to display the transaction activity.



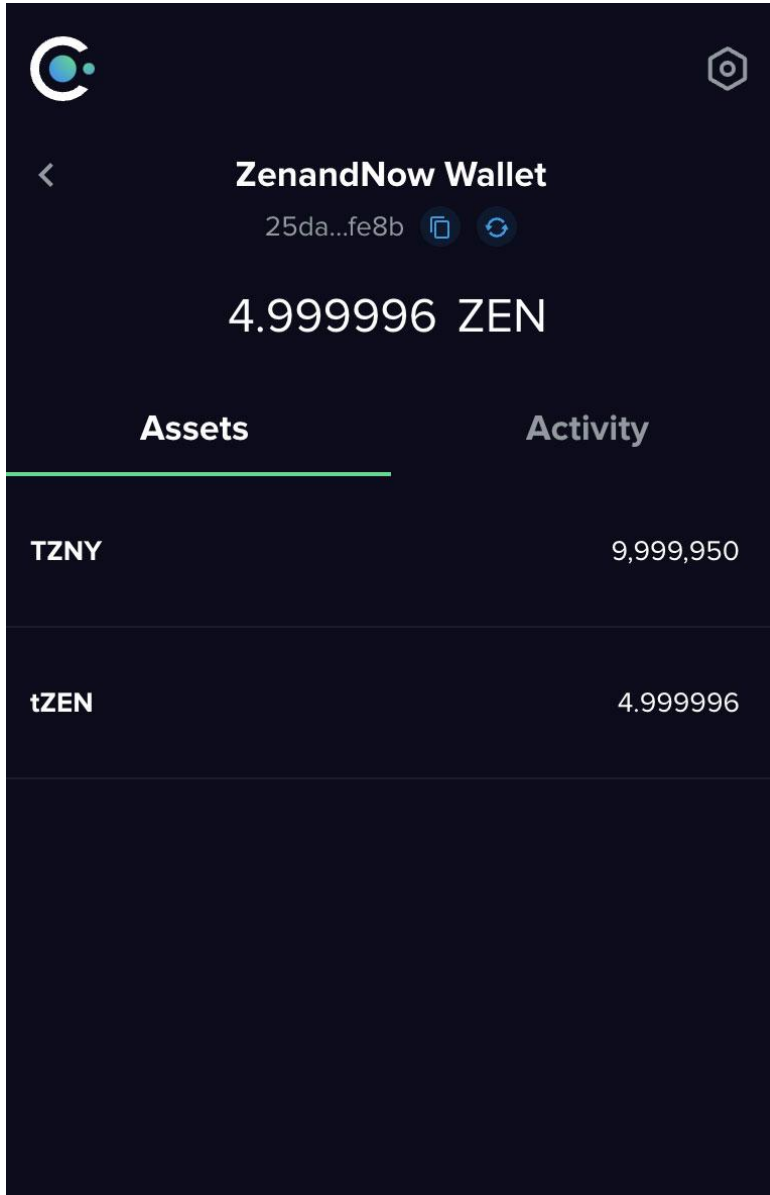
## Send ZEN to the Horizen mainchain

Your Cobalt Wallet allows you to send ZEN to an Horizen mainchain address.

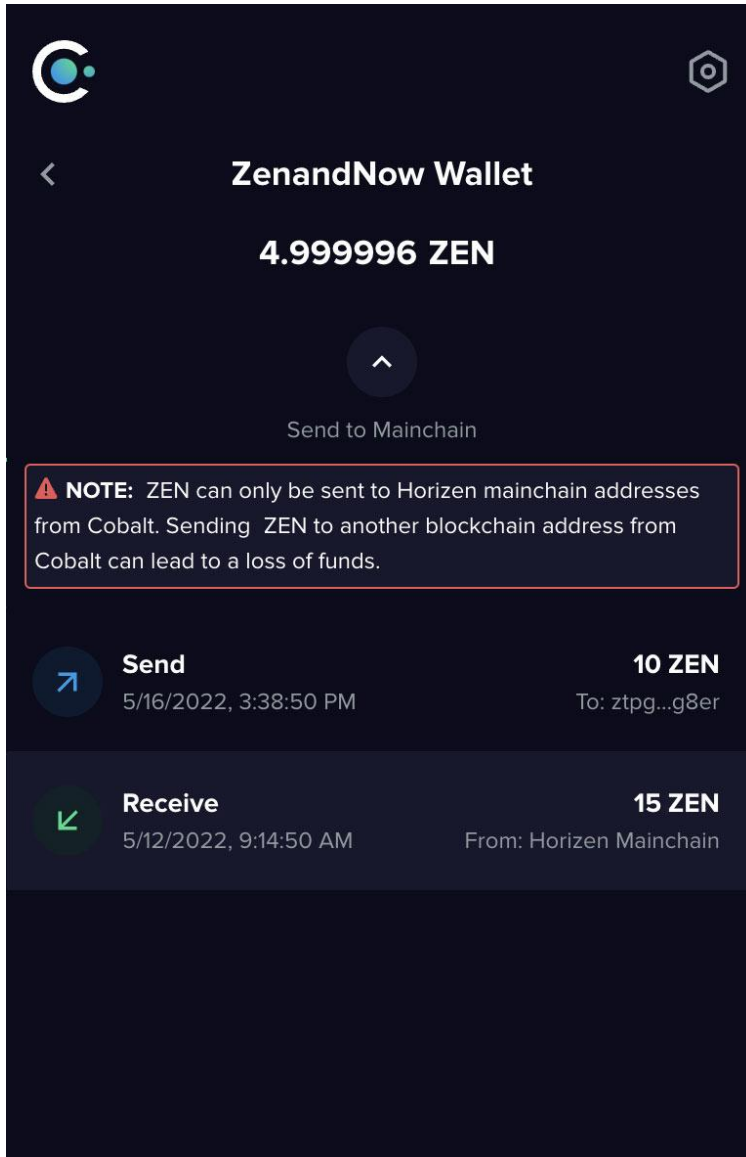
**Warning:** Do not send ZEN to another blockchain address due to the possibility of loss of funds.

**Note:** Sending ZEN back to the mainchain may take up to 12 hours.

1. In the **Assets and Activity** page, click the **ZEN** row. The page now allows you to send ZEN. It displays the current amount available.



2. Click the **up arrow** to send a transaction.



3. In the **Send to** field, enter the desired address you want to send the ZEN to. This field will display an error, if you enter an invalid address.

**Send ZEN**

Horizen mainchain can take up to several hours.

Send to:

ztpgN8mq69nMKNppb3ALmPDYtx2XvL9gξ

Available balance: 4.999996 ZEN

Amount (ZEN):

1.00000000

Transaction fee (ZEN):

0.000002

Enter your password to sign the transaction ⓘ

.....

Back Submit

4. In the **Amount** field, enter the amount of the ZEN you want to send.
5. In the **password** field, enter your password to complete the transaction.
6. Click **Submit**. The Sent flag appears indicating that the transaction is successful.
7. Click **Back** to display the transaction activity. The Send page appears. If the transaction is pending, a notification will appear stating that the last pending transaction for this address has not been confirmed.


The screenshot shows the ZenandNow Wallet interface. At the top left is a circular logo with a blue dot. At the top right is a hexagonal icon. Below the logo is a back arrow. The title "ZenandNow Wallet" is centered. Below the title is the balance "3.999994 ZEN". Underneath the balance is a circular button with an upward arrow and the text "Send to Mainchain". A red-bordered box contains a warning note: "NOTE: ZEN can only be sent to Horizen mainchain addresses from Cobalt. Sending ZEN to another blockchain address from Cobalt can lead to a loss of funds." Below the note is a list of transactions:

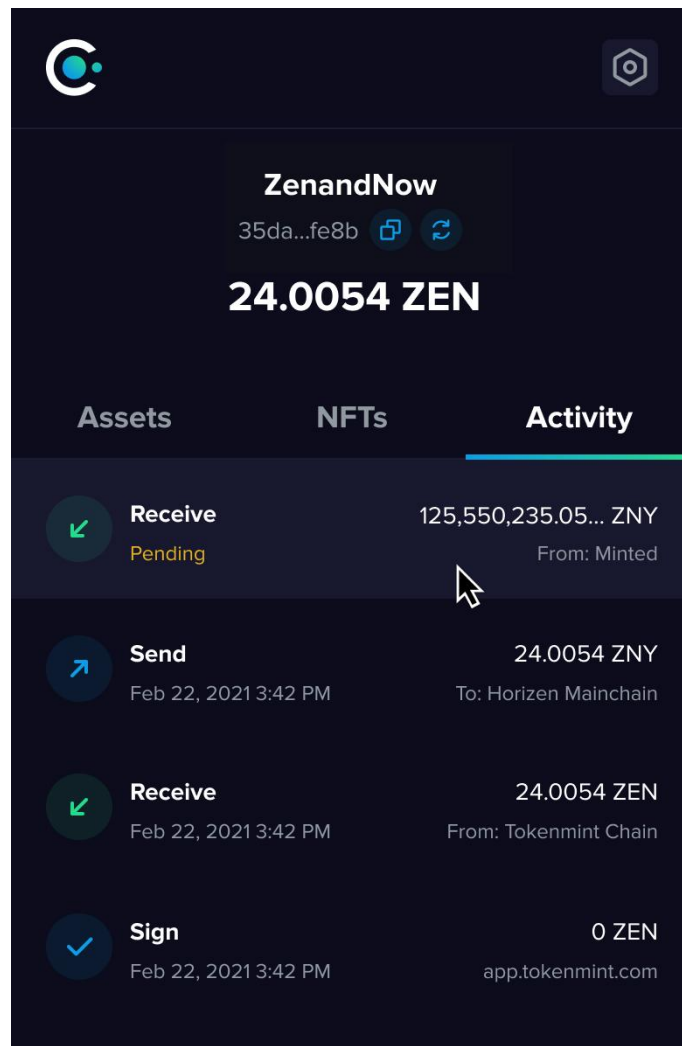
Transaction Type	Amount	Date and Time	Source/Target
Send	1 ZEN	5/17/2022, 4:10:50 PM	To: ztpg...g8er
Send	10 ZEN	5/16/2022, 3:38:50 PM	To: ztpg...g8er
Receive	15 ZEN	5/12/2022, 9:14:50 AM	From: Horizen Mainchain

## Receive and Send NFTs

### Receive NFTs

To receive NFTs, you must have a prior agreement with the sending party so that you can share your wallet's address. Perform the following steps:

1. Click the **Copy and Paste** icon  in the upper middle section of your wallet.
2. Share this address with the sending party to receive NFTs in your wallet.
3. Once you've received your NFTs, the **NFTs and Activity** page displays the total number of NFTs transferred. Click the **Receive NFT** row.



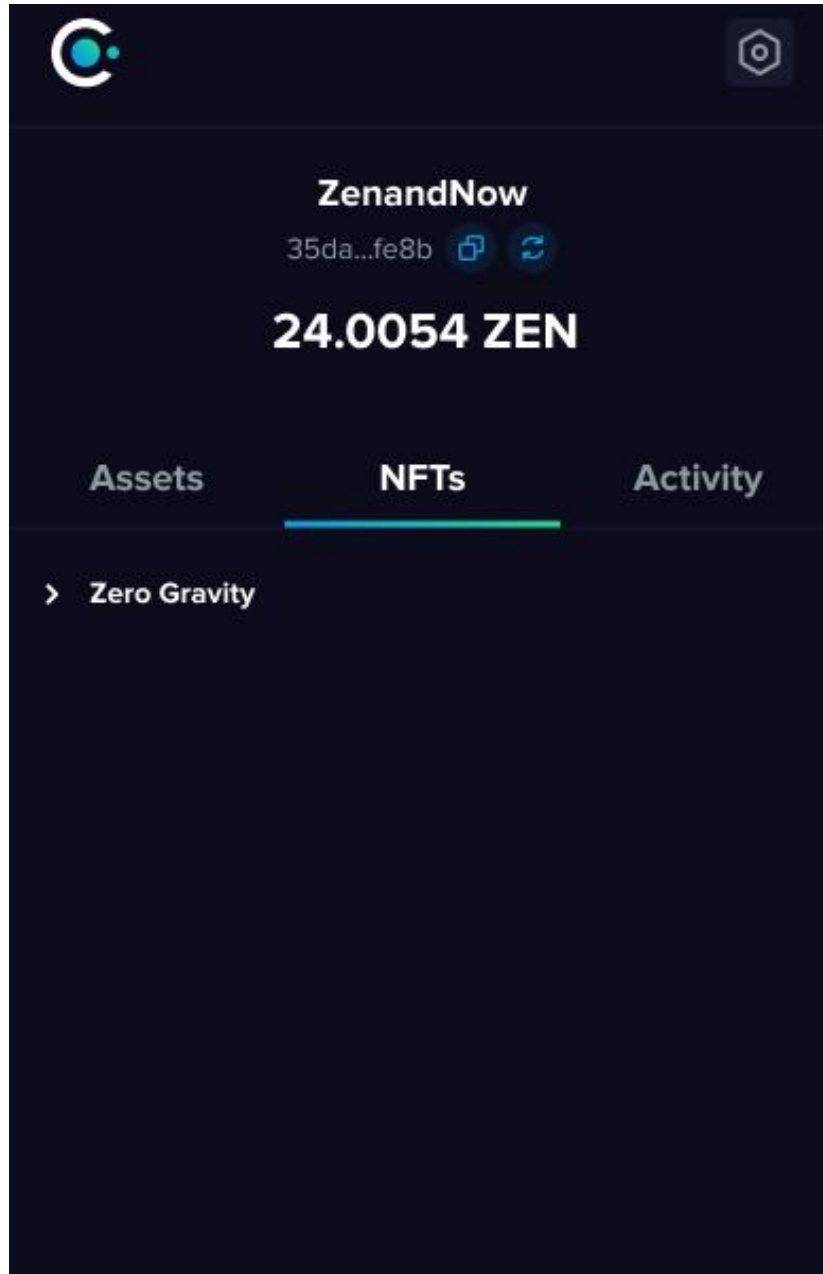


Your wallet displays the following activities:

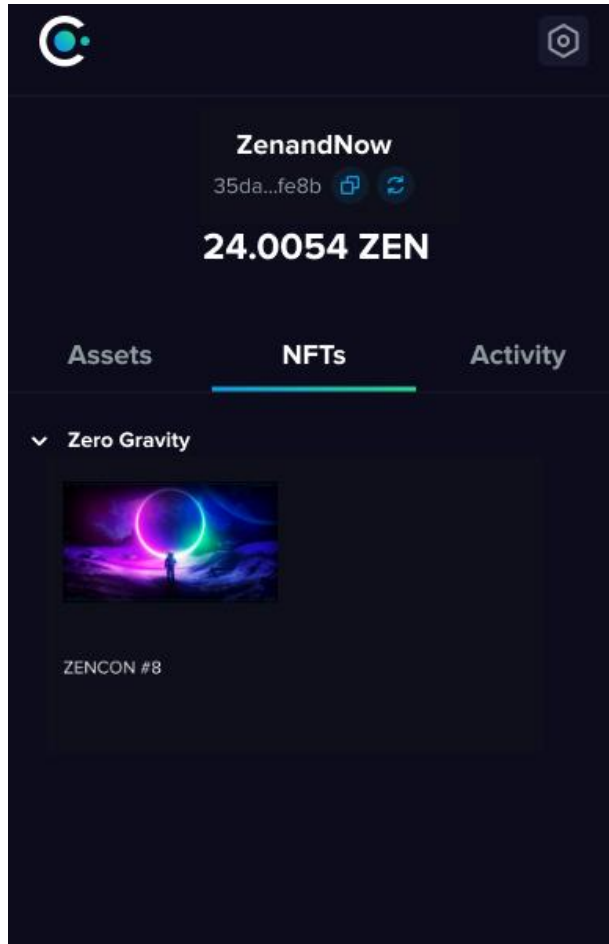
- NFT received
- Date and time when the NFT was received
- Number of NFT received
- Symbol of the NFT
- The first four and last digits of the address the transaction was sent from

## Send NFTs

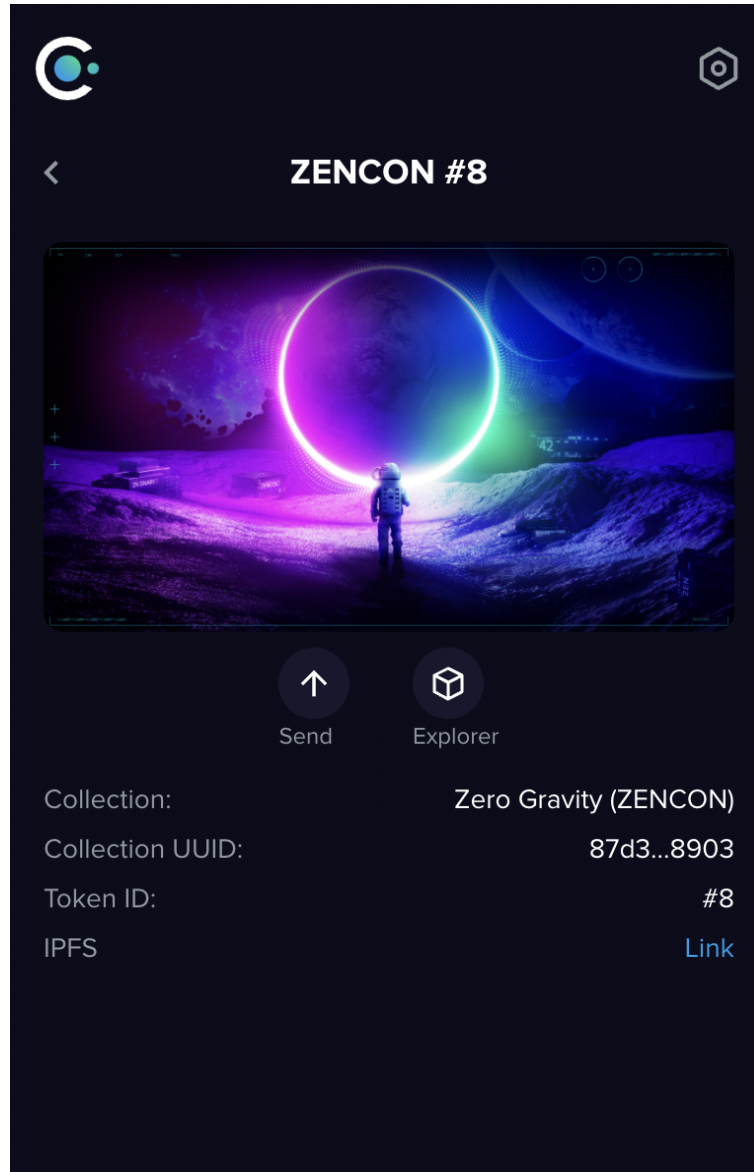
1. In the **NFTs** tab, select the **NFTs collection** you wish to send.



2. The NFT collection expands to display its associated NFTs. Click on the NFT's image. If there is no image, then click on the image's placeholder.



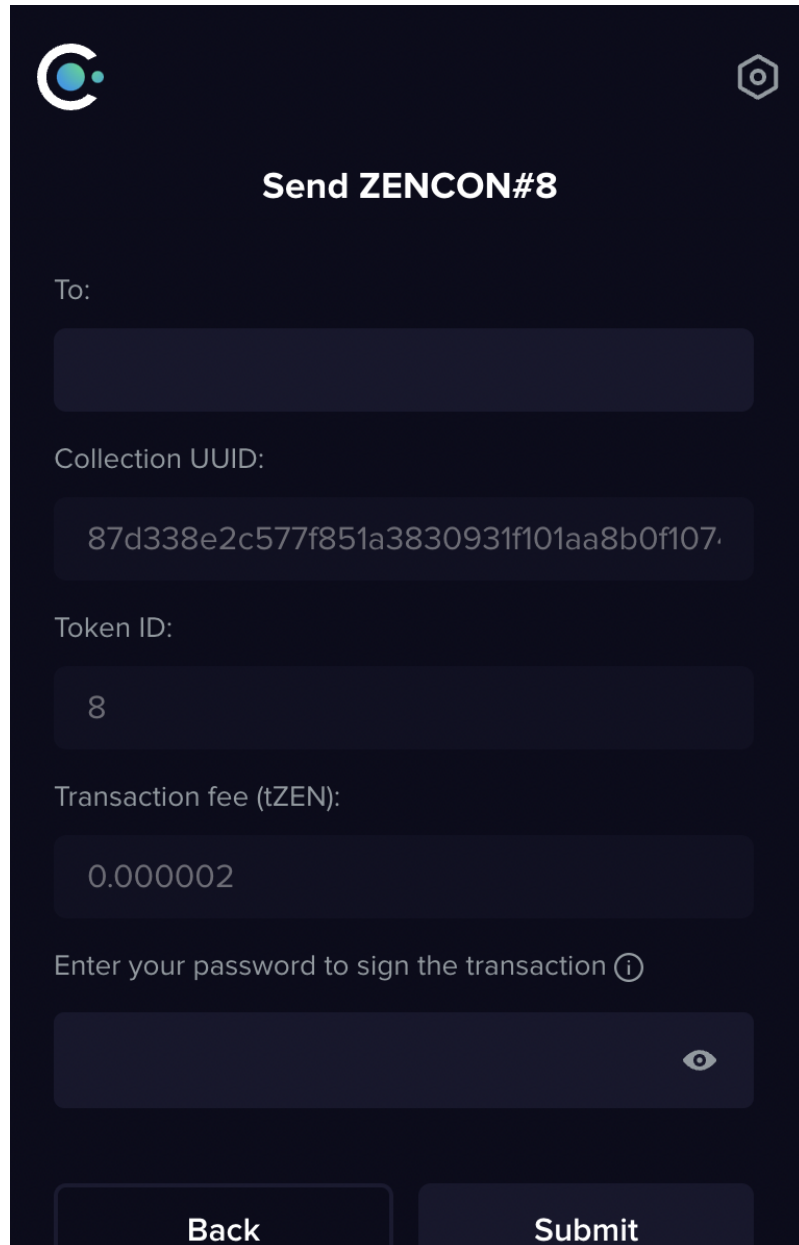
3. The specific NFT (Collection name and Token ID) page appears. Click the **Send** icon to send an NFT. The **Send** page appears.



4. In the **To:** field, enter the wallet address you want to send the NFT. The **Send** page displays detailed information about the NFT.

**Note:** See the [NFT Tab](#) section for information about the NFT's attribute. The **Transaction Fee** is by default set for this transaction.

5. Sign the transaction by entering your password.
6. Click **Submit**, otherwise click **Back** to the previous page.



The image shows a mobile application screen for sending a ZENCON token. The screen has a dark background with white text and input fields. At the top left is a circular logo with a blue and green dot. At the top right is a hexagonal icon. The title "Send ZENCON#8" is centered. Below the title are four input fields: "To:" (empty), "Collection UUID:" (containing "87d338e2c577f851a3830931f101aa8b0f107"), "Token ID:" (containing "8"), and "Transaction fee (tZEN):" (containing "0.000002"). Below these is a password prompt "Enter your password to sign the transaction" with an information icon and a password input field with a visibility toggle. At the bottom are two buttons: "Back" and "Submit".

**Send ZENCON#8**

To:

Collection UUID:

87d338e2c577f851a3830931f101aa8b0f107

Token ID:

8

Transaction fee (tZEN):

0.000002

Enter your password to sign the transaction ⓘ

Back Submit

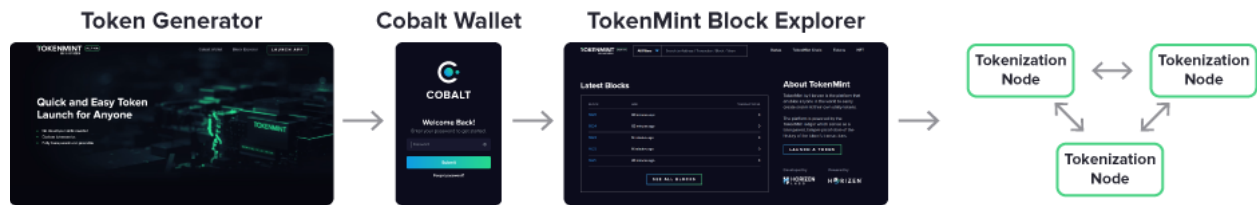
## Using the TokenMint Generator

The **TokenMint Generator** is a web page that allows users to generate and view their own fungible tokens and non-fungible tokens (NFTs) on the TokenMint Platform. The primary functions of the TokenMint Generator are to declare and mint tokens and NFTs that will live inside the TokenMint platform.

The TokenMint Generator has the following responsibilities:

- Connect to the Cobalt Wallet
- Collect the information needed to declare a token and send it to the Cobalt Wallet
- Collect the information needed to mint tokens and sends it to the Cobalt Wallet
- Display generated fungible tokens and NFTs information

## TokenMint Platform Architecture



The TokenMint Generator allows you to start a token project by declaring and minting a new token/NFT. It is integrated with the **Cobalt Wallet** where the wallet's password is needed to sign the token transactions initiated from the TokenMint Generator. The primary purpose of the Cobalt Wallet is to store your wallet keys, and to send and receive fungible tokens. Minted tokens and NFTs are displayed in the wallet through the TokenMint Generator.

The Block Explorer is the backend application that provides access to the Tokenchain sidechain to any frontend application (such as the Cobalt Wallet) that requires it. The Block Explorer also has a frontend application (TokenMint Block Explorer), which is a monitoring tool that displays the detailed information about the blocks, transactions, and tokens/NFTs created.

## Getting Started

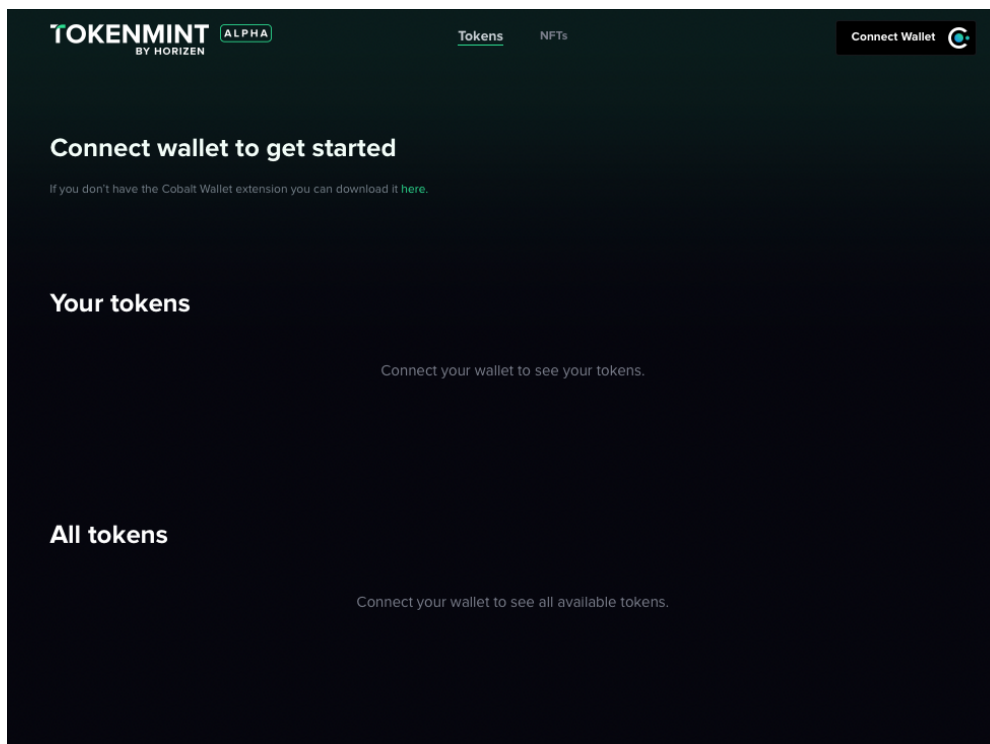
To begin, open the TokenMint Generator in the same browser that you installed your Cobalt Wallet, such as Chrome or Brave, then use the URL address:

<https://app.tokenmint.global/>

**Note:** The Cobalt Wallet must already be installed in your web browser. If not, use the link to download and install:

<https://chrome.google.com/webstore/detail/cobalt-by-horizen/hekbjgfnccadlnlajhgiakpaieajpfp>

The **TokenMint Generator** webpage appears:



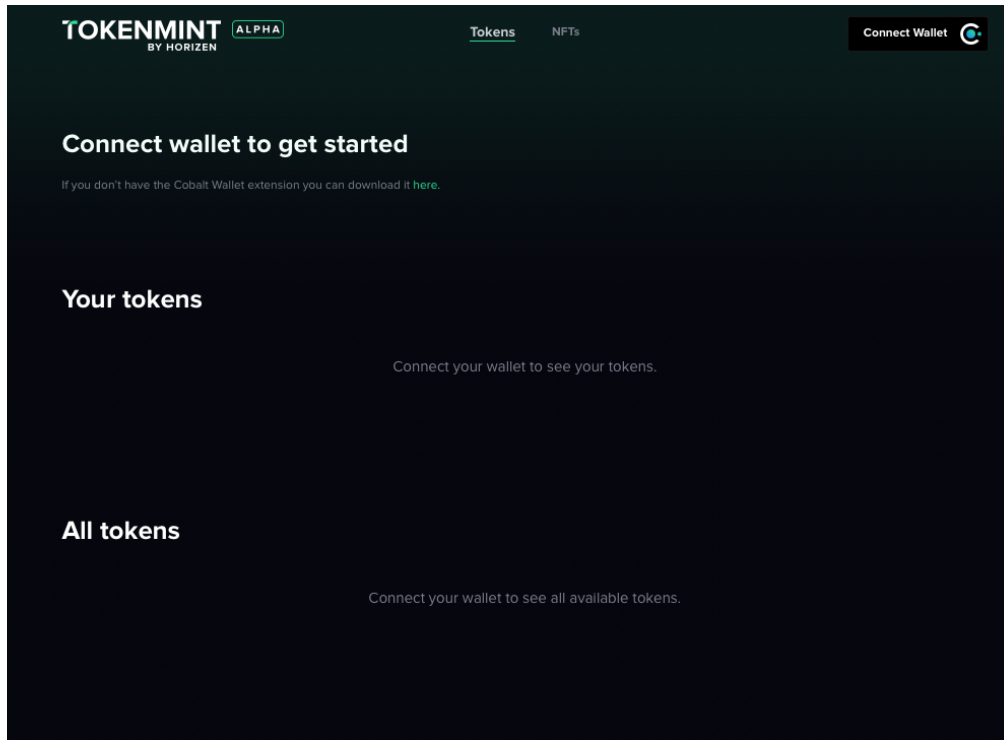
**Note:** You must have a **Cobalt Wallet address** at hand to make a connection in order to mint and send tokens.



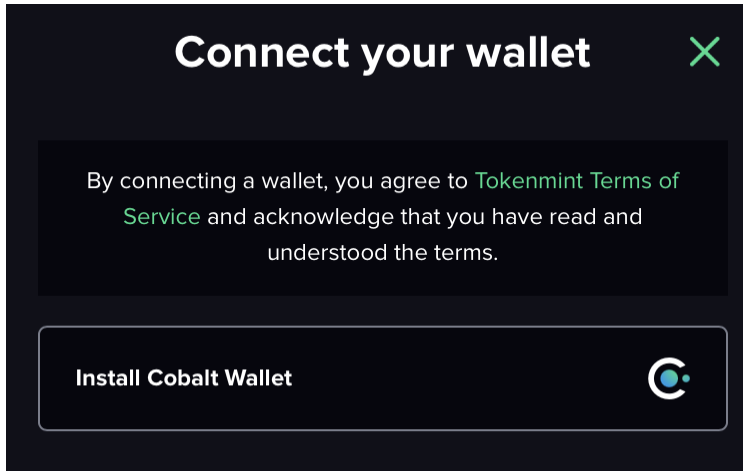
## Connect to Cobalt Wallet

**Note:** If you already have the Cobalt Wallet extension in your web browser, you can skip to **Step 4** below.

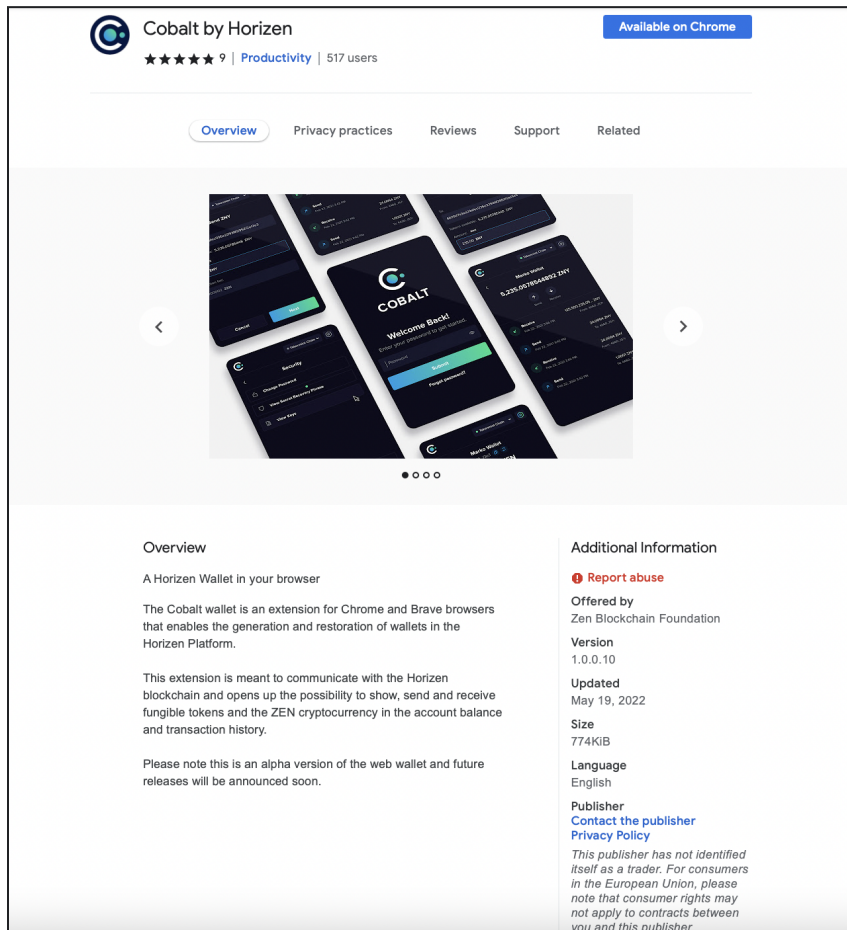
Once you are on the **TokenMint Generator** page, perform the following steps to connect to the Cobalt Wallet:



1. In the top right corner of the page, click **Connect Wallet**. A pop-up notification appears to install the Cobalt Wallet.



2. Click **Install Cobalt Wallet**. You are redirected to the latest version of Cobalt Wallet webpage.



3. Click **Available on Chrome**.
4. Pin the **Cobalt Wallet extension** in your browser.
5. To connect to the **TokenMint Generator**, it is required that an address is already created in the Cobalt wallet.
6. The TokenMint Generator displays a **Cobalt Wallet** connection. Make sure that the Cobalt Wallet address is correct.

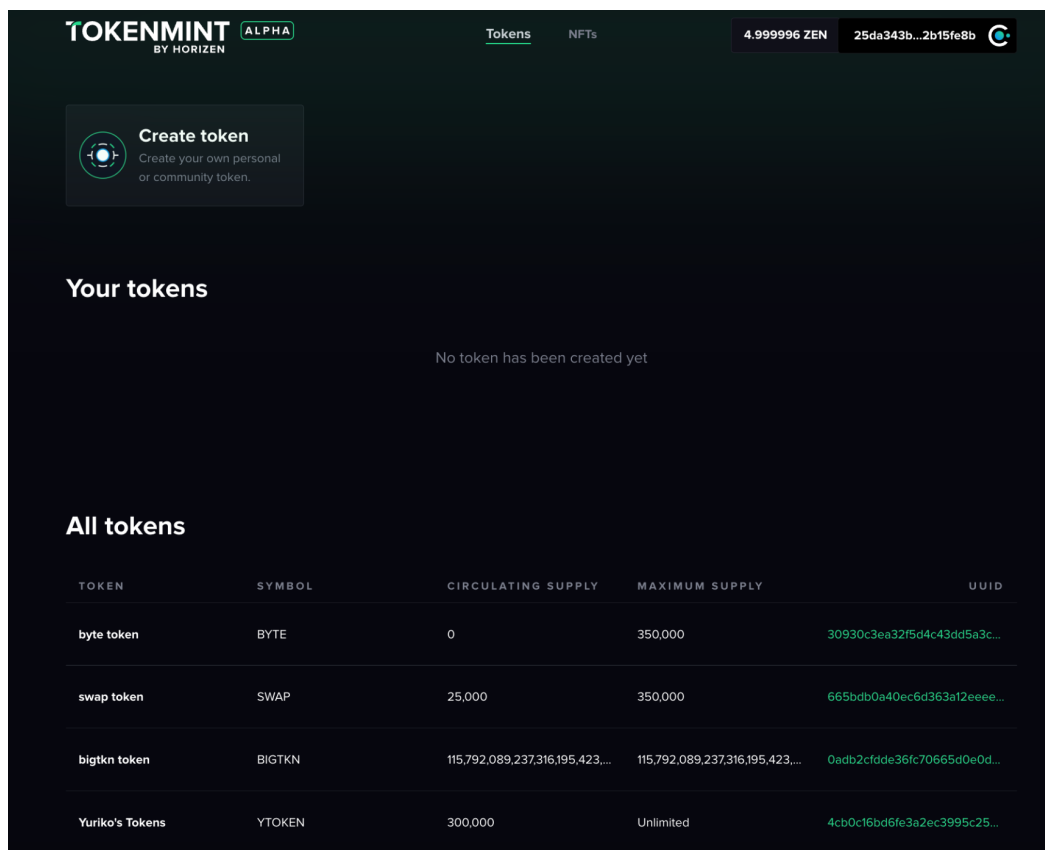
The screenshot shows the TokenMint Alpha interface. At the top, there's a navigation bar with 'Tokens' and 'NFTs' tabs. The user's balance is shown as '4.999996 ZEN' and their address as '25da343b...2b15fe8b'. A 'Create token' button is visible on the left. The main content area shows a 'Connected account' section with the address '25da343b...2b15fe8b' and options to 'Copy address' and 'View explorer'. Below this, there's a 'Your tokens' section with the message 'No token has been created yet'. At the bottom, there's an 'All tokens' section with a table listing various tokens.

TOKEN	SYMBOL	CIRCULATING SUPPLY	MAXIMUM SUPPLY	UUID
byte token	BYTE	0	350,000	30930c3ea32f5d4c43dd5a3c...
swap token	SWAP	25,000	350,000	665bdb0a40ec6d363a12eeee...
bigtkn token	BIGTKN	115,792,089,237,316,195,423,...	115,792,089,237,316,195,423,...	0adb2cfdde36fc70665d0e0d...
Yuriko's Tokens	YTOKEN	300,000	Unlimited	4cb0c16bd6fe3a2ec3995c25...

# Create Tokens

The TokenMint Generator allows you to generate tokens by declaring and minting an initial supply and then viewing your fungible tokens.

In the **TokenMint** platform page, the **Tokens** page is set by default. Since this is the first time that the **TokenMint Generator** page appears, there are no tokens created as depicted in the **Your tokens** field.



The **All tokens** pane displays all created tokens associated with the Tokenchain Node. It includes the following fields:

**Token** - This is the name of the token provided by the token creator.

**Symbol** - This is the symbol name of the token provided by the token creator.

**Circulating Supply** - Amount of tokens currently in circulation.

**Maximum Supply** - The maximum amount of tokens that will ever be in circulation. This value is configured in the **Maximum Supply** field when creating a token.

**UUID** - Unique identifier of the token. Click on the **UUID** link to display the details of the token.

1. Click **Create token** to generate a token. The **Create a token** page appears.

The screenshot shows the 'Create a token' interface. At the top, there's a navigation bar with 'TOKENMINT BY HORIZEN', 'ALPHA', 'Tokens', and 'NFTs'. A balance of '4.999996 ZEN' and a UUID '25da343b...2b15fe8b' are visible. The main heading is 'Create a token' with a subtext 'Create a token with a fixed or limited supply.' Below this is a progress bar with 'Token Info' (active) and 'Mint Tokens'. The form fields are: 'TOKEN NAME', 'TOKEN SYMBOL', 'MAXIMUM SUPPLY', and 'TOKEN CREATION FEE' (0.42 ZEN). There's an 'ADVANCED' dropdown and a 'TERMS AND CONDITIONS' section with a toggle. A 'CONFIRM' button is at the bottom.

2. In the **Token Name** field, enter the full name of your token.
3. In the **Token Symbol** field, enter a symbol name for your token. The symbol name must be three to six characters long (only letters and numbers are allowed).
4. In the **Maximum Supply** field, enter the maximum amount of token in units to set.
5. The **Token Creation Fee** displays the required fee for declaring a token transaction. This field is a display field.
6. Click **Advanced**.

**Note:** The **Advanced** settings are optional to edit. If needed, you can customize the parameters.

**Create a token**

Create a token with a fixed or limited supply.

Token Info Mint Tokens

TOKEN NAME ⓘ  
Ramone Tokens

TOKEN SYMBOL ⓘ  
BIGFIN

MAXIMUM SUPPLY ⓘ  
500,000

TOKEN CREATION FEE ⓘ  
0.42 ZEN

ADVANCED ^

MINTABLE ⓘ

BURNABLE ⓘ

UNLIMITED SUPPLY ⓘ

CUSTOMIZABLE DECIMALS ⓘ

TERMS AND CONDITIONS  
I agree to the [Terms and Conditions](#)

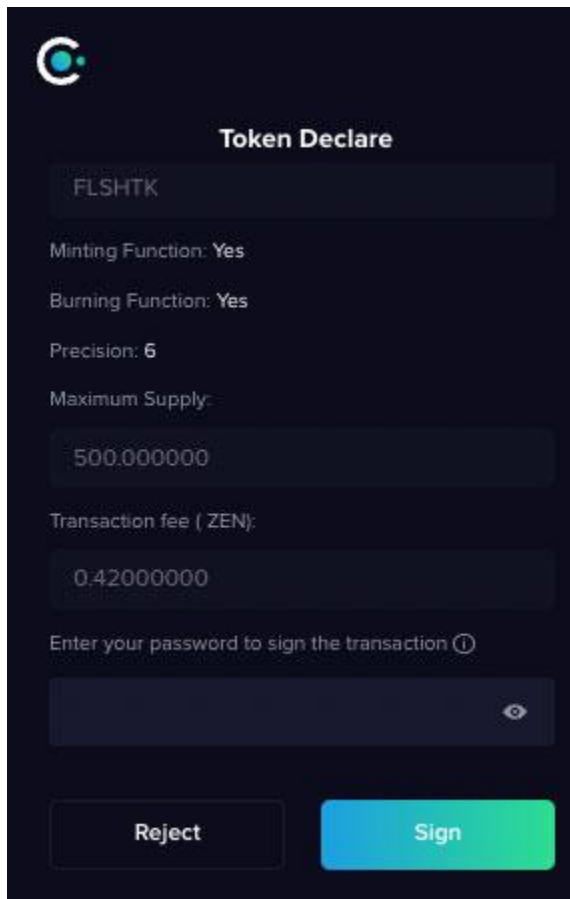
CONFIRM

**Note:** Only the original token creator can mint and burn them.

7. The **Mintable** toggle enables the ability to create new tokens after having minted the initial supply (increasing the supply).
8. The **Burnable** toggle allows you to destroy part of the token supply.
9. The **Unlimited Supply** toggle allows you to mint tokens an unlimited number of times.

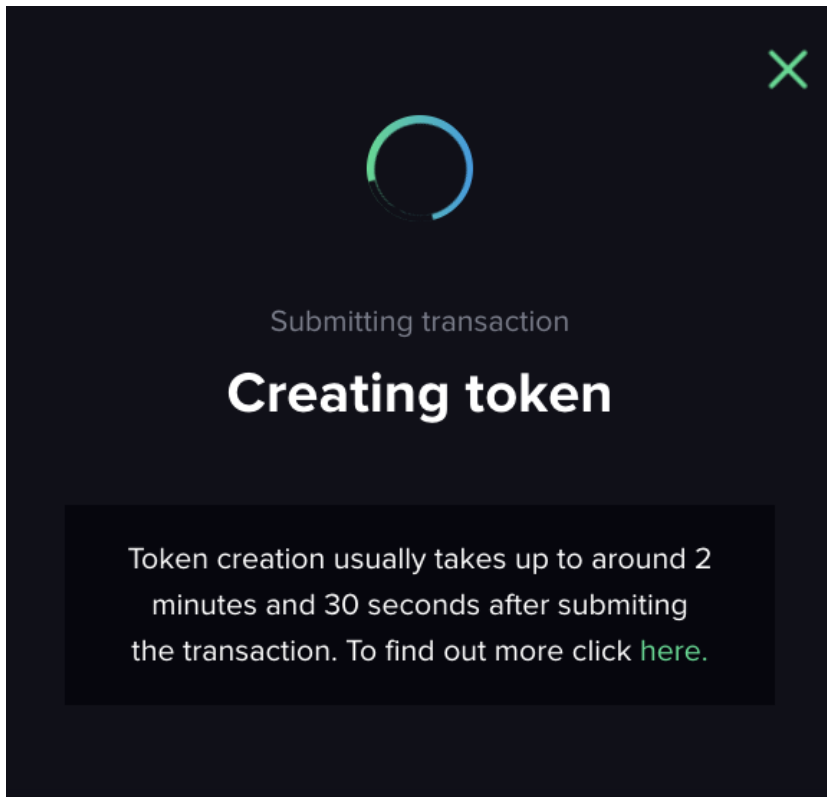
**Note:** Once you set the **Unlimited Supply** toggle, you will always be able to mint new tokens. Otherwise, the maximum number of tokens will be the value populated in the **Maximum Supply** field.

10. The **Customizable Decimals** toggle allows you to set the number of decimals places of the token value.
11. Once the fields are filled-out and the toggles are set, enable the **Terms and Conditions** toggle to agree.
12. Click **Confirm**. The Cobalt Wallet's **Token Declare** page appears.



13. The **Token Declare** page summarizes your token's parameters. Enter your Cobalt Wallet **password** and click **Sign**. A success notification appears.

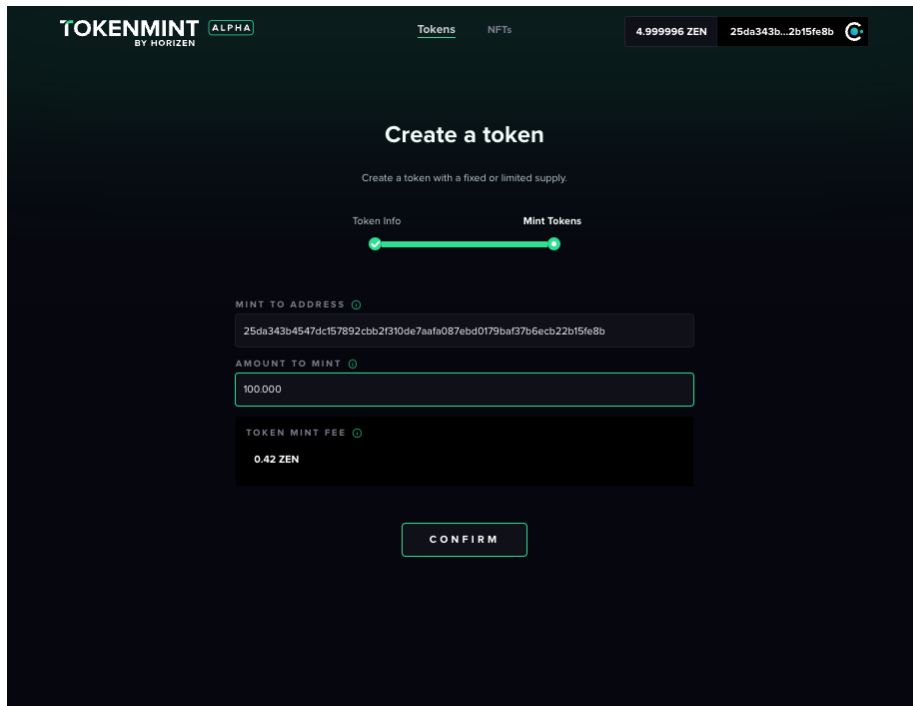
The declaration of a token is a three-minute process where the token needs to be confirmed by the network. Once the token is confirmed, it is then minted. The **Confirm** button is disabled until the confirmation process is complete. The spinner indicates that the confirmation is in progress.





# Mint Tokens

After a successful signing of your token declaration transaction, the **Create a token** page appears. This page allows you to mint tokens a specified amount and send them to a specified address.

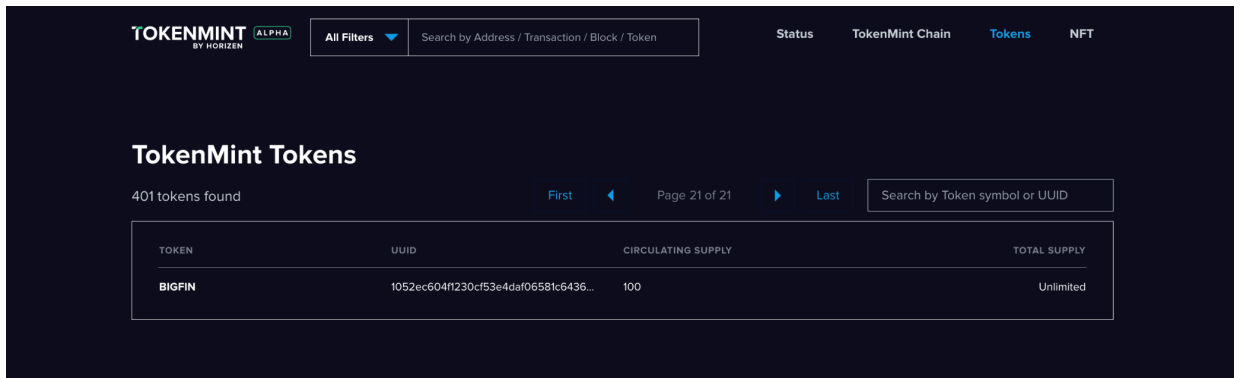


1. In the **Mint to Address** field, enter an address where you want to send the minted tokens. It is defaulted to your connected address.
2. In the **Amount to Mint** field, enter the amount of tokens you want to send at this particular time.
3. Click **Confirm**. A congratulations message appears.

- You can confirm the sent token transaction using the TokenMint Block Explorer.

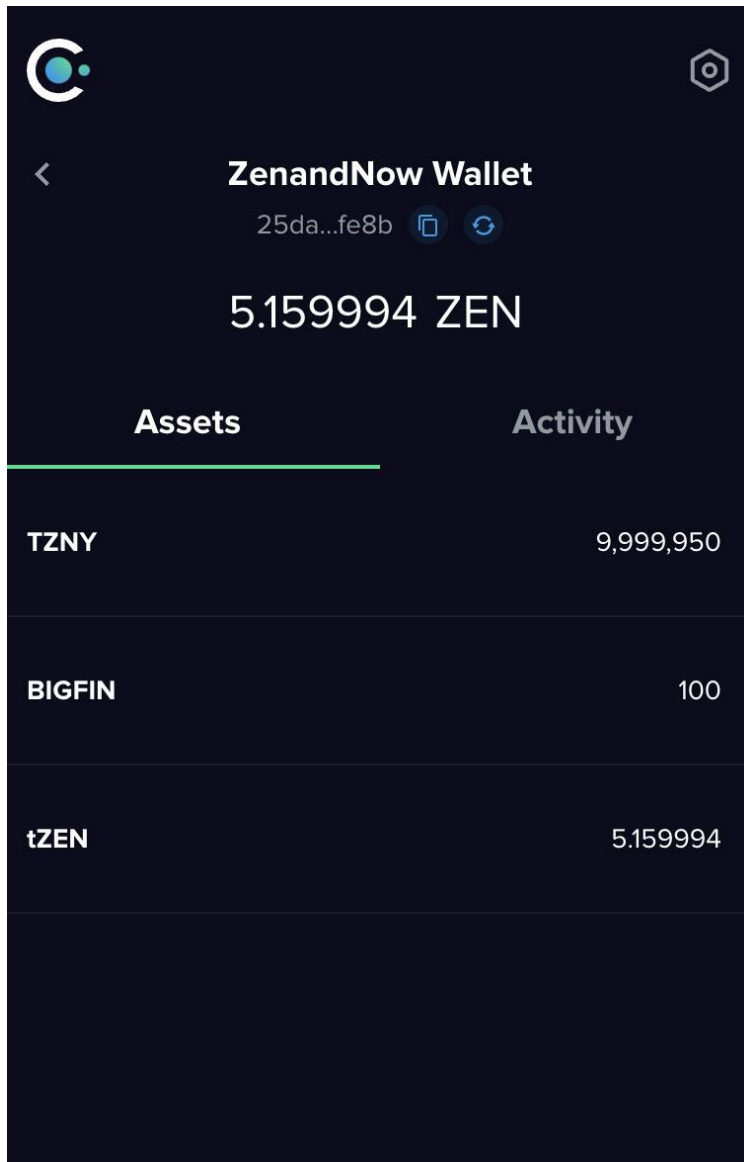
**Note:** The TokenMint Explorer must be on the mainnet network:

<https://explorer.tokenmint.global/>



**Note:** You can also use the **TokenMint Generator** to confirm your sent token transactions under the **Your tokens** and **All tokens** pane.

- You can also confirm the token transaction through the address of where you sent the minted tokens. In this example, the minted tokens were sent to a Cobalt Wallet.



After configuring and creating your tokens, you are able to mint them.

**Note:** The **Mint token** button now appears to the right of the **Create token** button. By returning to the **TokenMint Generator** webpage, your recently created tokens are displayed under the **Your tokens** pane.

The screenshot shows the TokenMint Alpha interface. At the top, there's a navigation bar with 'Tokens' and 'NFTs' tabs, and a user profile section showing '4.739994 ZEN' and a wallet address '25da343b...2b15fe8b'. Below the navigation, there are two main buttons: 'Create token' (with a subtext 'Create your own personal or community token.') and 'Mint token' (with a subtext 'Mint new supply of your token.').

The 'Your tokens' section contains a table with the following data:

TOKEN	SYMBOL	CIRCULATING SUPPLY	MAXIMUM SUPPLY	BALANCE	UUID
Ramone Tokens	BIGFN	100	Unlimited	100	1052ec604f230cf53e4
FLASHTOKEN	FLSHTK	0	500	0	1ac0afb20a61870568b6

The 'All tokens' section contains a larger table with the following data:

TOKEN	SYMBOL	CIRCULATING SUPPLY	MAXIMUM SUPPLY	UUID
byte token	BYTE	0	350,000	30930c3ea32f5d4c43dd5a3c...
swap token	SWAP	25,000	350,000	665bd0a40ec6d363a12eeea...
bigtkn token	BIGTKN	115,792,089,237,316,195,423...	115,792,089,237,316,195,423...	0adb2cfdde36fc70665d0e0d...
Yuriko's Tokens	YTOKEN	300,000	Unlimited	4cb0c16bd6fe3a2ec3995c25...
bndtkn token	BNDTKN	115,792,089,237,316,195,423...	115,792,089,237,316,195,423...	3064fa49950a07b09048bdff...
PCoin	PCOIN	94.45	10,000,000	f0ec366298a06548aa93570f...
Unlimited PCoin	UPCOIN	0	Unlimited	2bd0785d9e4640feb90589f7...
dtest token	DTEST	210,000	730,000	7ff327b4ff7dcb7e6c3a5e6d15...
nmsply token	NMSPLY	0	Unlimited	9fc5fd8-c5f58ac2059de56ac...
JofraCoin	JCOIN	10,000	1,000,000	8dc171ae703aeb6788d9bbd9...

At the bottom of the 'All tokens' section, there is a 'VIEW ALL' button.

1. Select the desired token to be minted by clicking on its **UUID** field. The token's details appear.

**TOKENMINT** ALPHA  
BY HORIZEN

Tokens NFTs

4.739994 ZEN 25da343b...2b15fe8b

## Ramone Tokens

BIGFIN

**UNIQUE ID**  
1052ec604f1230cf53e4daf06581c6436f8016dtd83b05cabedb915104895264

CIRCULATING SUPPLY: 100  
EXPLORER: Tokenmint Explorer  
MAXIMUM SUPPLY: Unlimited

**Mint token**  
Mint new supply of your token.

### My Ramone Tokens transactions

TRANSACTION ID	AGE	TYPE NAME	AMOUNT	FEE
f5805e805ecf66747e28d85	546 hours and 33 minutes ago	TokenFungibleMint	100 BIGFIN	0.42 ZEN
018b7b9aa597d7ad7226b66	548 hours and 55 minutes ago	TokenDeclare	0 BIGFIN	0.42 ZEN

Before actually minting your tokens, make sure that the number of token supply is adequate for minting. If the **Maximum Supply** value is set to unlimited, then the minting of tokens will always be available. If not, the **Mint token** button is disabled once the circulating supply equals the maximum supply.

2. Click **Mint token**. The **Mint tokens** page appears.

**Mint tokens**

Mint additional supply of your token.

SELECT TOKEN

BIGFIN ▼ Your balance: 100

MINT TO ADDRESS ⓘ

25da343b4547dc157892cbb2f310de7aafa087ebd0179baf37b6ecb22b15fe8b

QUANTITY TO MINT ⓘ

50.000

CURRENT SUPPLY ⓘ	NEW SUPPLY ⓘ
100	150

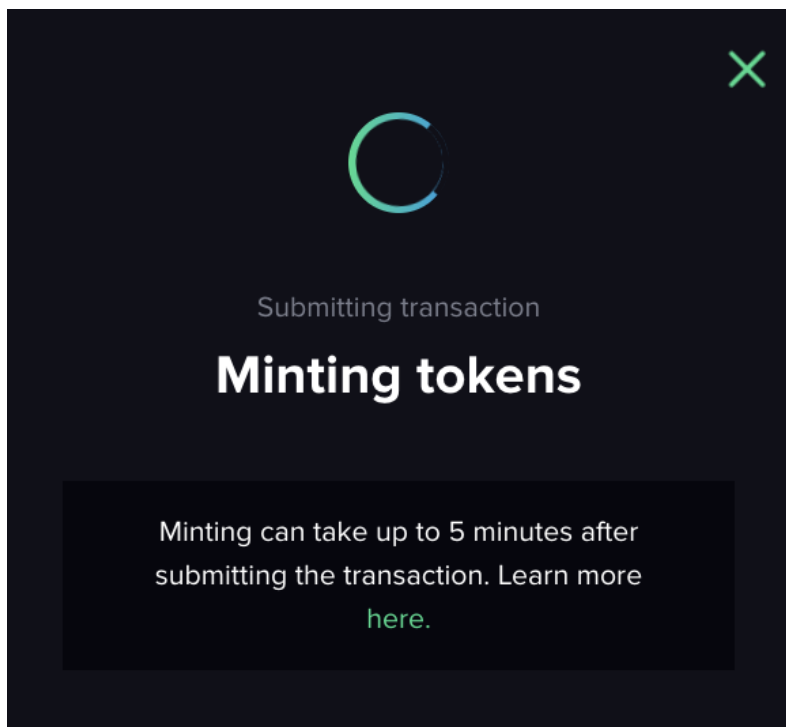
TOKEN MINT FEE ⓘ

0.42 ZEN

CONFIRM

3. In the **Select Token** field, use the drop-down menu to select the desired token to be minted.
4. In the **Mint to Address** field, make sure that the displayed address is the appropriate address to where the minted tokens will be sent to.
5. In the **Quantity to Mint** field, enter the amount of tokens you want to mint. This amount is added to your balance.

6. Review the following fields for reference:
  - The **Current Supply** field displays the amount of tokens that are currently circulating.
  - The **New Supply** field displays the amount of tokens circulating after the new minting operation is confirmed.
  - The **Token Mint Fee** field displays the required fee for a token minting transaction.
7. Click **Confirm**. A notification appears stating that the minting can take up to five minutes after submitting the transaction.



- The Cobalt Wallet signing window appears. Enter your wallet's **password** and click **Sign**.

**Token Mint BIGFIN**

25da343b4547dc157892cbb2f310de7aafaC

To:

25da343b4547dc157892cbb2f310de7aafaC

Amount:

50.000

Transaction fee (ZEN):

0.42000000

Enter your password to sign the transaction ⓘ

**Reject** **Sign**

A success notification appears when the transaction is complete.



# NFTs

The Token Generator allows you to create NFT collections and mint NFTs. As a digital asset that is verifiable on the blockchain, an NFT is a unique asset which can include artwork, thereby making it a sought after collectible.

## Create NFT Collections

The TokenMint Generator allows you to generate NFTs by declaring and minting an initial supply and then viewing your non-fungible tokens.

### Storing NFT Data in IPFS

An NFT collection is a grouping of one or more NFTs, with or without images. Before you can create a collection, you must store the data (image and metadata) of your NFT collection in an **InterPlanetary File System (IPFS)** for several reasons. However, the main reason for storing your NFT data in an IPFS is that you don't lose it. Once your data is lost, your NFT becomes **worthless**.

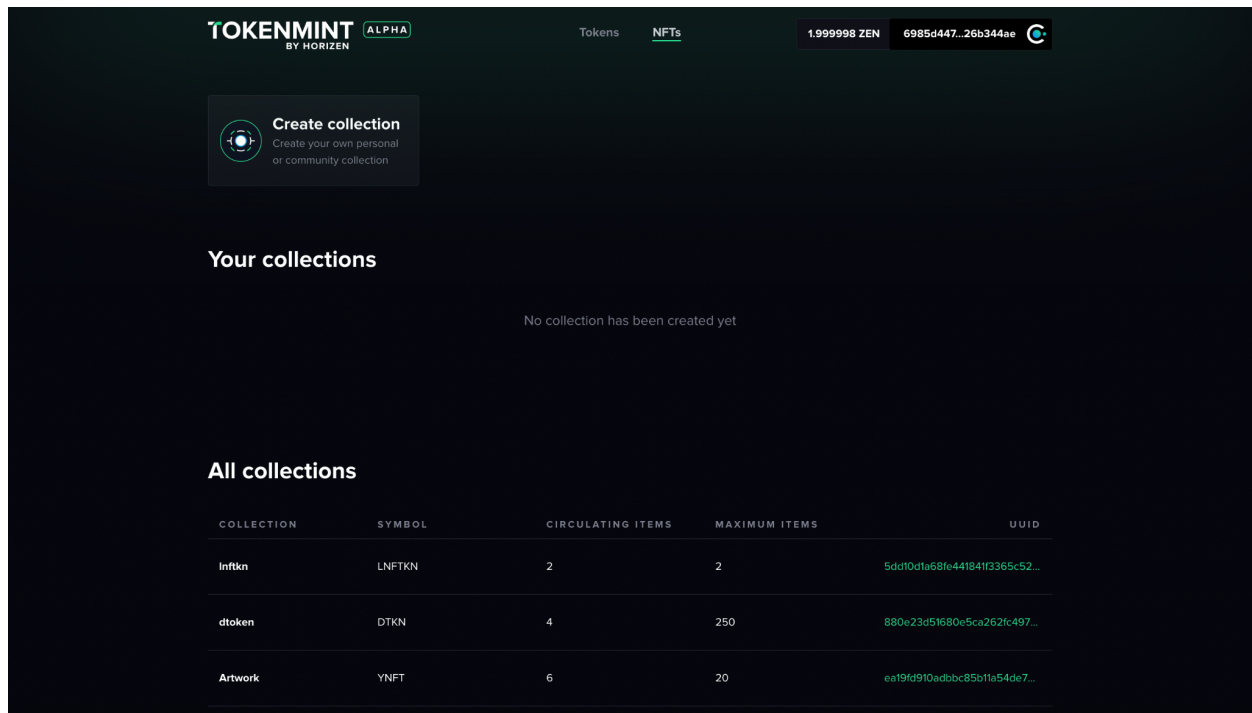
An NFT is composed of **on-chain data** (which includes the unique id, the owner's public key, and the url address of the off-chain data) and **off-chain data** (which consist of the digital image and associated metadata). The on-chain data is guaranteed to be available in a blockchain. On the other hand, the off-chain data is not in a blockchain. Therefore, it is not guaranteed to be available. It can be lost or stolen.

So if you create, sell, or buy an NFT, it is prudent that you make a copy of the NFT's off-chain data in the cloud of a **pinning service**. By doing so, you can ensure that the off-chain data is accessible through a specific URI address in an IPFS hosting service. This allows you to upload the same data to two different nodes in a network or repeatedly upload/download the off-chain data and still maintain consistency.

Once you have stored your off-chain data in the IPFS pinning service, the data is now guaranteed to be accessible. This is called **content-addressing** and ensures continuity throughout the network. However, it is still recommended that you backup your off-chain data on your localhost computer.

<TBD - See Loading Your NFT Data into an **IPFS** Repository in preparation for creating a collection.>

If this is your first time creating an NFT collection, the **TokenMint Generator - NFTs** tab shows no collection created as depicted in the **Your collections** field.



The **All collections** pane displays all created collections associated with the Tokenchain Node. It includes the following fields:

**Collection** - This is the name of the collection provided by the collection creator.

**Symbol** - This is the symbol name of the collection provided by the collection creator.

**Circulating Items** - Amount of NFTs currently in circulation.

**Maximum Items** - The maximum number of NFTs that will ever be in circulation. This value is configured in the **Maximum Supply** field when creating a NFT.

**UUID** - Unique identifier of the collection. Click on the **UUID** link to display the details of the collection.

1. Click **Create collection** to generate an NFT collection. The **Create an NFT Collection** page appears.

The screenshot shows the 'Create an NFT collection' interface. At the top, there's a navigation bar with 'TOKENMINT BY HORIZEN', 'ALPHA', 'Tokens', and 'NFTs'. The user's balance is shown as '1.999998 ZEN' and '6985d447...26b344ae'. The main heading is 'Create an NFT collection'. Below it, a sub-heading says 'Create an NFT collection with a fixed or unlimited item supply. To learn more about how to mint or use tokens, read our [NFT Minting Guide](#).' There are two tabs: 'Create collection' (active) and 'Mint NFT'. A progress indicator shows the 'Create collection' step is active. The form fields are:
 

- COLLECTION NAME: SantaCruzZen
- COLLECTION SYMBOL: SCZ
- BASE URI: ipfs://QmaFhzNysQaQuDATuwPVHQ9E4wE2qewuhijaNxb592PCeCV/
- ITEM SUPPLY: 5
- UNLIMITED SUPPLY: [toggle off]
- COLLECTION CREATION FEE: 0.25
- TERMS AND CONDITIONS: I agree to the [Terms and Conditions](#) [toggle on]

 A 'CONFIRM' button is located at the bottom of the form.

2. In the **Collection Name** field, enter the full name of your collection.
3. In the **Collection Symbol** field, enter a symbol name for your collection. The symbol name must be three to six characters long (only letters and numbers are allowed).

4. In the **Base URI** field, enter the ipfs URI address where the collection is stored. The URI address begins with **ipfs://** and should end with **/**
5. In the **Item Supply** field, enter the amount of NFTs in your collection.
6. By default, the **Unlimited Supply** toggle is set to disabled. You can toggle to enable if you wish to set an unlimited number of your collection.
7. The **Collection Creation Fee** displays the required fee for declaring a collection.
8. By default, the **Terms and Conditions** toggle is set to disabled. Enable the toggle to accept the terms and conditions for creating a collection. The **CONFIRM** button will appear.
9. Click **Confirm**. The **Declare NFT Collection** window appears.

**Declare NFT Collection**

Base URI:

ipfs://QmaFhzNysQaQuDATuwPVHQ9E4wE

Minting Function: No

Burning Function: No

Maximum Supply:

5

Transaction fee (tZEN):

0.25

Enter your password to sign the transaction ⓘ

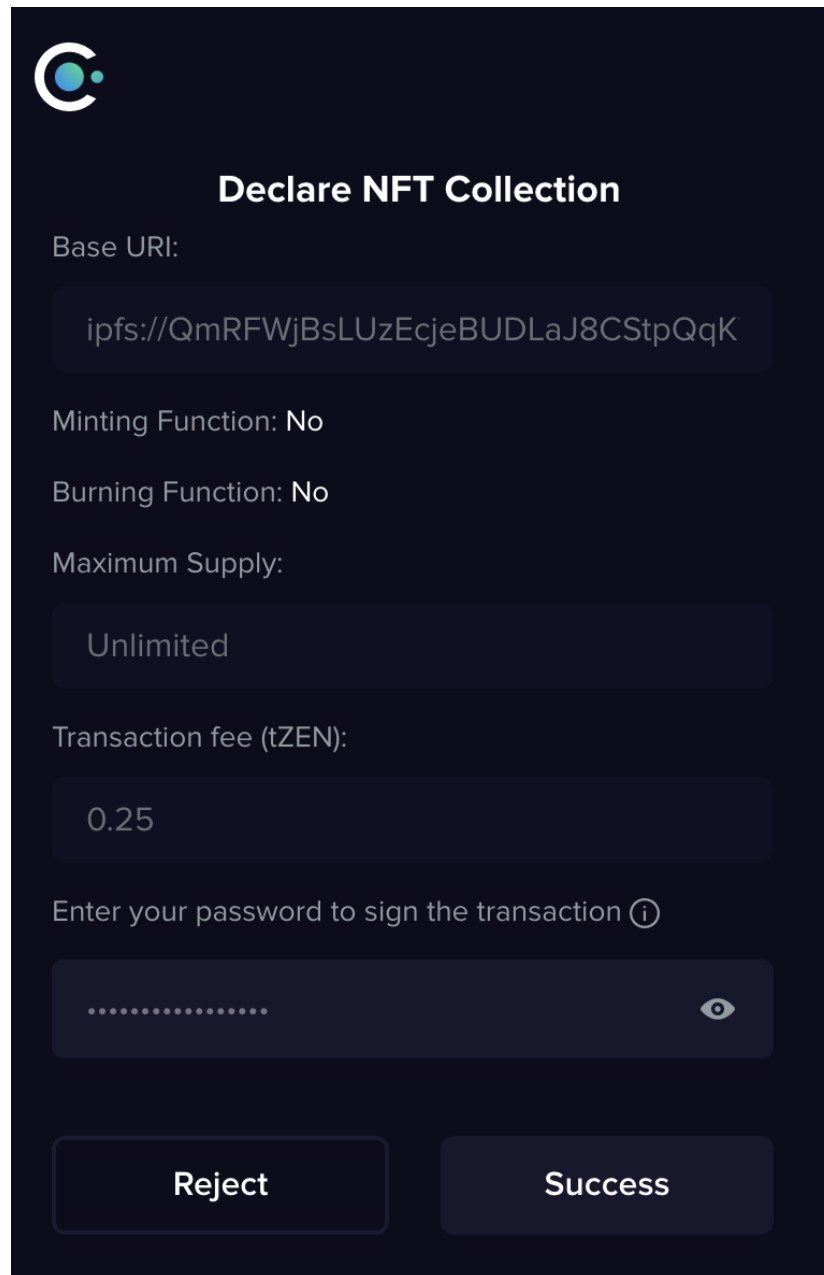
.....

Reject Sign

10. In the **Password** field, enter your wallet’s password to sign the transaction.

**Note:** You can click on the eye icon  to display your password’s characters.

11. Click **Sign**. If the collection creation is successful, the **Success** button appears. Otherwise, the button displays **Failure**.



**Declare NFT Collection**

Base URI:  
ipfs://QmRFWjBsLUzEcjeBUDLaJ8CStpQqK


Minting Function: No

Burning Function: No

Maximum Supply:  
Unlimited

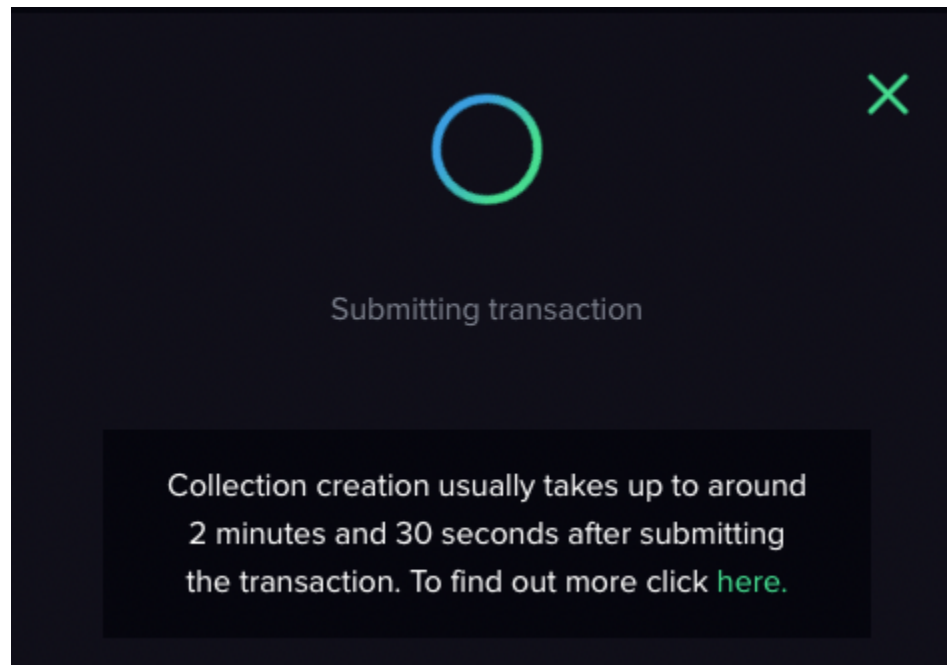
Transaction fee (tZEN):  
0.25

Enter your password to sign the transaction ⓘ

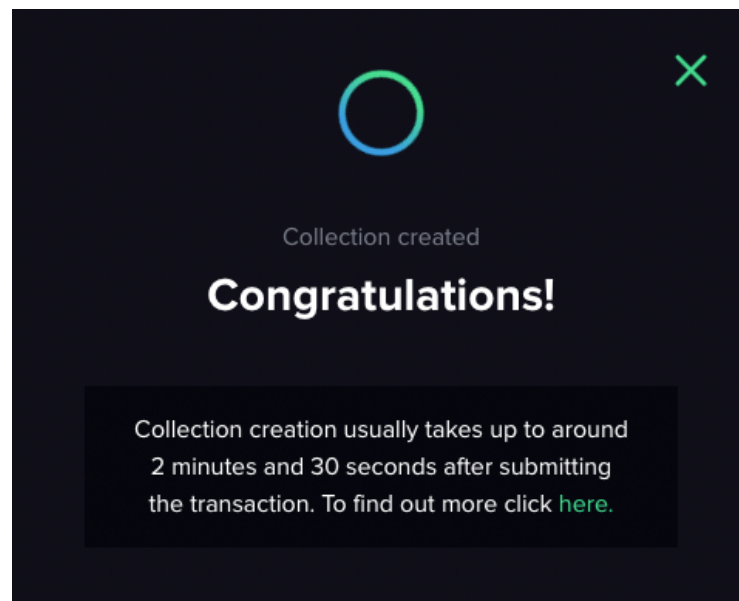
..... 

**Reject** **Success**

A notification window appears stating that your collection creation will take approximately two minutes and thirty seconds after submitting the transaction.



Once the collection is created successfully, a congratulations notification appears.



After creating your NFT collection, the **TokenMint Generator - NFTs** tab shows all of your collection in the **Your collections** field.

**TOKENMINT** ALPHA

Tokens NFTs 14.75 ZEN 6985d447...26b344ae

**Create collection**  
Create your own personal or community collection

**Mint NFT**  
Mint an NFT as part of your collection

### Your collections

COLLECTION	SYMBOL	CIRCULATING ITEMS	MAXIMUM ITEMS	OWNED	UUID
SantaCruzZen	SCZ	0	5	0	636d05a567085734caa...
PaloAltoZen	PAZ	0	5	0	9935f0a087326ab9223...

### All collections

COLLECTION	SYMBOL	CIRCULATING ITEMS	MAXIMUM ITEMS	UUID
Test Carlos	TSTC	1	100	91917502318dbate58c9cda7a...
TST2	TST2	0	Unlimited	8953a6c33e3d4c6e71934c2d...

Optionally, you can click on the desired collection's **UUID** link to view any collection elements. The specific collection information is displayed. Click on the **TokenMint Explorer** link to launch the Block Explorer for details on this NFT collection. Otherwise, you can mint an NFT.

**TOKENMINT** ALPHA

Tokens NFTs 14.75 ZEN 6985d447...26b344ae

## SantaCruzZen

SCZ

**UNIQUE ID**  
636d05a567085734caa8ee78aa978b2bb919e97afcdfa01fc2ee9c02a491d8c8

CIRCULATING ITEMS 0	EXPLORER TokenMint Explorer
MAXIMUM SUPPLY 5	

**Mint NFT**  
Mint an NFT as part of your collection

### SantaCruzZen NFTs

No elements found

## Mint NFTs

After creating a collection, you now can mint an NFT. By minting an NFT, you are publishing a unique digital asset on a blockchain where it can be transferred.

Once an NFT collection has been created, the **Create an NFT collection** page displays the process bar to show that **Mint NFT** is enabled. When your collection is created, the **Mint NFT** button is enabled.

You can begin the minting process from the **Create an NFT collection** page by performing the following:

1. In the **Mint to Address** field, enter the wallet address you wish to mint your NFT to.

## Create an NFT collection

Create an NFT collection with a fixed or unlimited item supply. To learn more about how to mint or use tokens, read our [NFT Minting Guide](#).

Create collection
Mint NFT

**MINT TO ADDRESS** ⓘ

**NFT MINT FEE** ⓘ

0.25

ⓘ Your collection is still being created. You will be able to mint your NFTs once your create collection transaction is recorded in the next block. Check the status [here](#)

MINT NFT



2. The NFT Mint Fee field is automatically populated with the transaction fee. Click **Mint NFT**.

You can also mint an NFT using the **TokenMint Generator - NFTs** tab. This page shows your NFT collection(s) along with all collections in the same node.

To begin the minting process from the **TokenMint Generator - NFTs** tab, perform the following:

1. Click **Mint NFT**.

The screenshot shows the TokenMint Alpha interface. At the top, there's a navigation bar with 'Tokens' and 'NFTs' tabs. The 'NFTs' tab is active, showing a balance of 14.75 ZEN and a wallet address. Below the navigation, there are two main buttons: 'Create collection' (with a subtext 'Create your own personal or community collection') and 'Mint NFT' (with a subtext 'Mint an NFT as part of your collection').

Below these buttons, there are two sections: 'Your collections' and 'All collections', each containing a table of NFT collections.

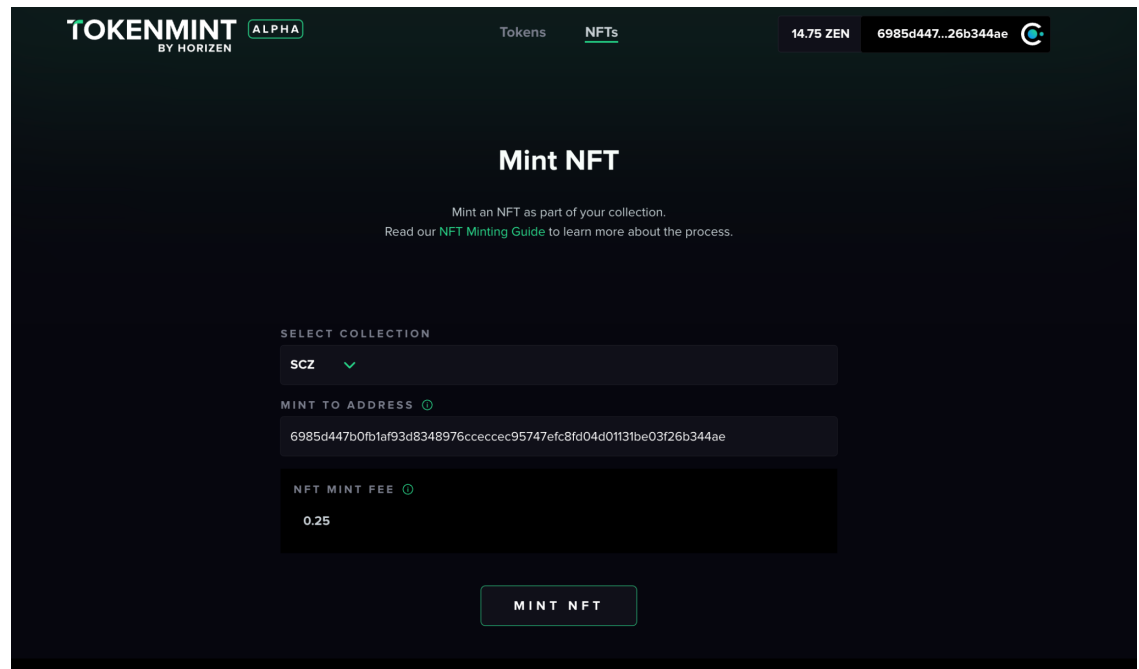
COLLECTION	SYMBOL	CIRCULATING ITEMS	MAXIMUM ITEMS	OWNED	UUID
SantaCruzZen	SCZ	0	5	0	636d05a567085734caa...
PaloAltoZen	PAZ	0	5	0	9935f0a087326ab9223...

COLLECTION	SYMBOL	CIRCULATING ITEMS	MAXIMUM ITEMS	UUID
Test Carlos	TSTC	1	100	91917502318dba1e58c9cda7e...
TST2	TST2	0	Unlimited	8953a6c33e3d4c6e71934c2d...

The **Mint NFT** page appears.

2. The Token Generator automatically populates the **Select Collection** field with a collection name that has not been minted. Click the **down arrow** to see other collection names. Select a different collection name if desired.



3. In the **Mint to Address** field, the last wallet address that you used to send the minted NFT is, by default, automatically entered. You can change the wallet address, if desired.
4. The **NFT Mint Fee** field is automatically populated with the set transaction fee.
5. Click **Mint NFT**. The **NFT Mint** window appears.

The screenshot shows a dark-themed mobile application window titled "NFT Mint". At the top left is a circular logo with a blue and green dot. The main content area contains several input fields and buttons:

- Wallet Address:** A text field containing the hexadecimal string "6985d447b0fb1af93d8348976cceccec9574".
- Collection UUID:** A text field containing the hexadecimal string "636d05a567085734caa8ee78aa978b2bb9".
- Token ID:** A text field containing the number "1".
- Transaction fee:** A text field containing the decimal value "0.25".
- Authentication:** A prompt "Enter your password to sign the transaction" with an information icon, followed by a password input field with a blue border and a toggle eye icon.
- Buttons:** Two buttons at the bottom: a "Reject" button with a dark background and white text, and a "Sign" button with a blue-to-green gradient background and white text.

The NFT Mint window displays the following:

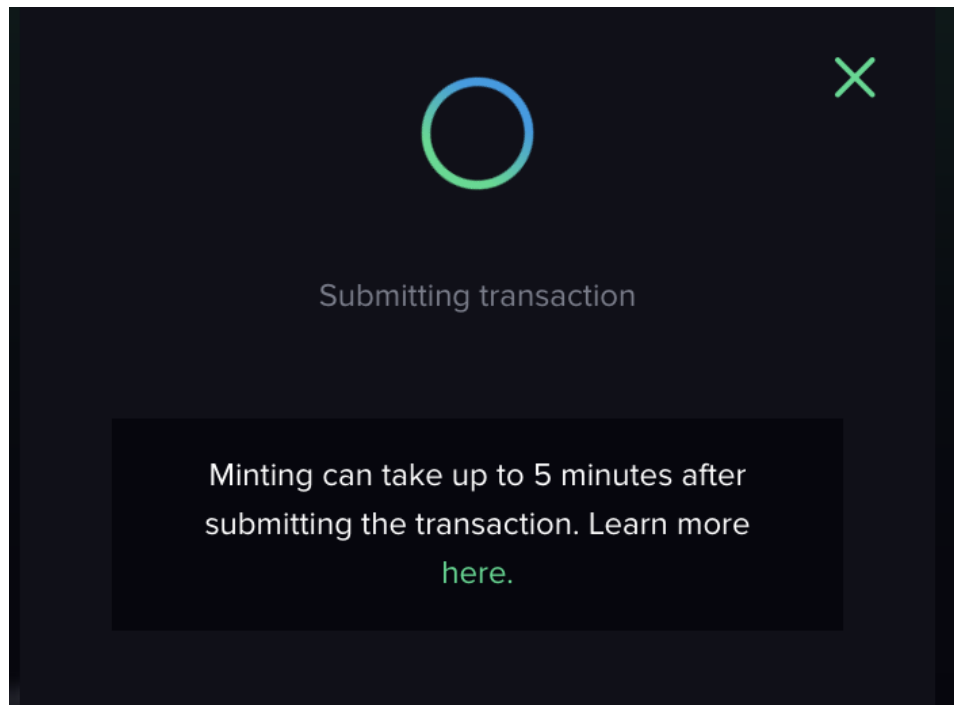
**Wallet Address** - The address where you are sending the minted NFT.

**Collection UUID** - The unique identifier of the collection.

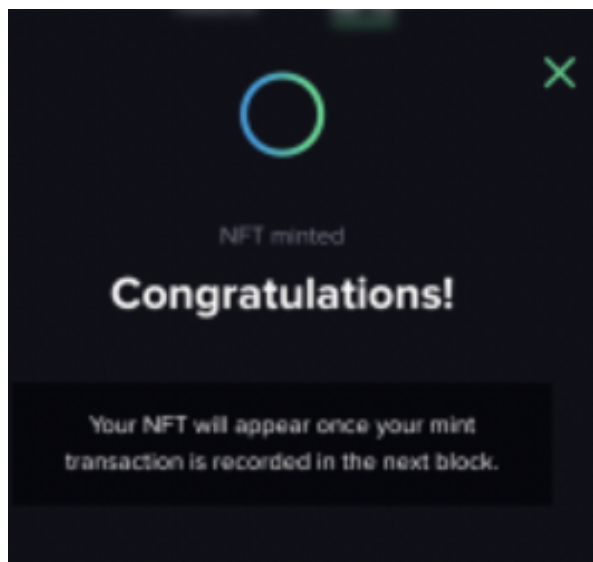
**Token ID** - The ID of the NFT in the collection.

**Transaction Fee** - The fee amount for the transaction.

6. In the **Password** field, enter your wallet's password to sign the transaction. The **Submitting transaction** notification window appears.



Minting can take up to five minutes. Afterwards, the **Congratulations!** notification for completion of minting an NFT appears.



7. Go to your Cobalt wallet to verify that you have received the minted NFT.

