

# Frontier Multisig

## User Manual

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## **1. Introduction**

A multi-signature cryptocurrency wallet, often referred to as a multisig wallet, is a type of digital wallet that requires multiple signatures or approvals from different owners to authorise transactions. This added layer of security makes it more difficult for unauthorised parties to access or move funds, as they would need control over multiple private keys.

## 2. Setting up MetaMask

Follow these steps to set up MetaMask on your browser:

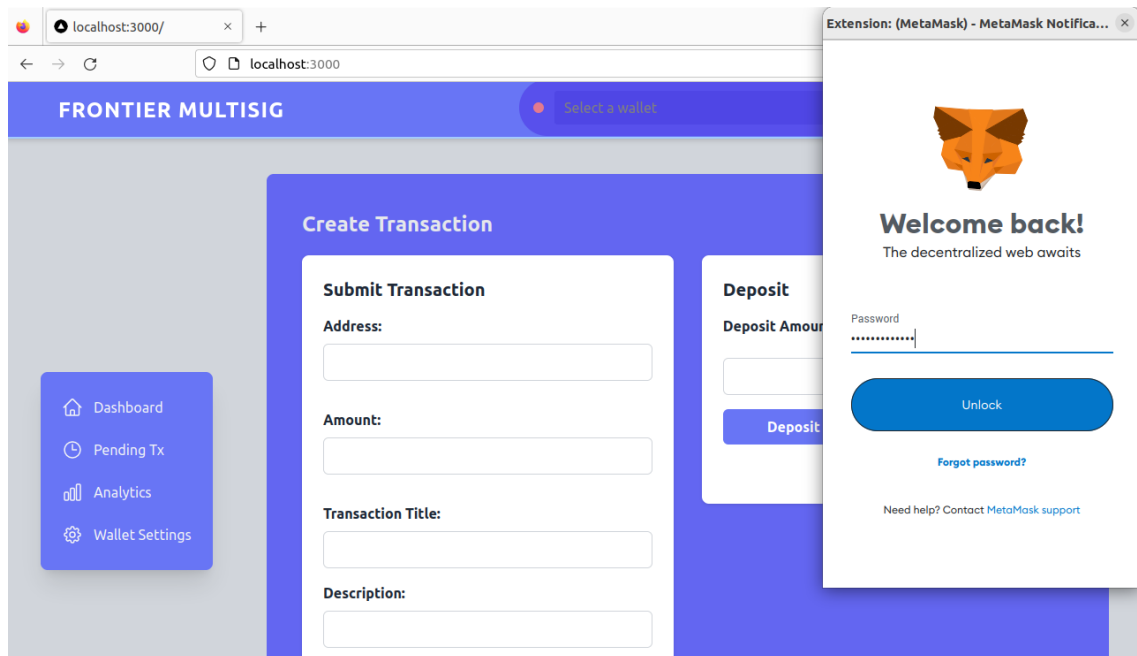
1. **Install MetaMask:** Visit the official MetaMask website at <https://metamask.io/download.html> and select the appropriate download option for your browser (Chrome, Firefox, Edge, or Brave). Follow the installation process to add MetaMask as an extension to your browser.
2. **Create a MetaMask account:** Once the extension is installed, click on the MetaMask icon in your browser's toolbar. If you're a new user, click "Get Started" to create a new account. If you're an existing user, click "Import using account seed phrase" and input your 12-word seed phrase to access your existing account.
3. **Set up a new wallet:** Click "Create a Wallet" and choose a strong password. Make sure to remember the password or store it securely, as it will be required to access your wallet.
4. **Backup your seed phrase:** MetaMask will provide you with a 12-word seed phrase. Write this down and store it in a safe place. The seed phrase is crucial for recovering your wallet in case you lose access to your device or forget your password. Do not share your seed phrase with anyone, as it can be used to gain access to your wallet and associated funds.
5. **Confirm your seed phrase:** After writing down your seed phrase, MetaMask will ask you to verify it by selecting the words in the correct order. This step ensures that you have correctly backed up your seed phrase.
6. **Fund your wallet:** To interact with decentralised applications (dApps) and execute transactions on the Ethereum network, you'll need Ether (ETH) in your wallet. You can purchase ETH through the MetaMask interface, or send it from another wallet or exchange to your MetaMask wallet address.

### 3. Creating a wallet

On the web app you will see a bar across the top which contains the information for which wallet you have currently set as active as well as its balance. If you want to create a new wallet, press the **+** icon at the top right of the page.

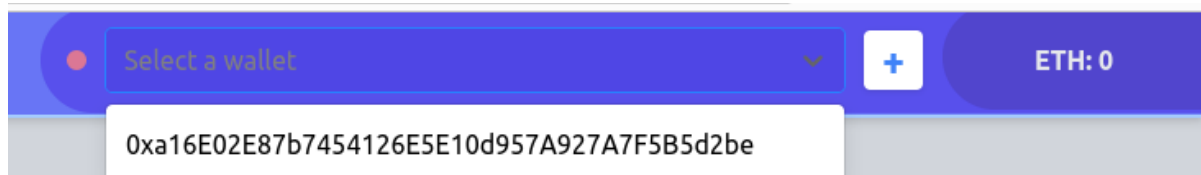


Then Metamask will automatically pop up and ask you to complete the creation of the wallet by paying a small gas fee.

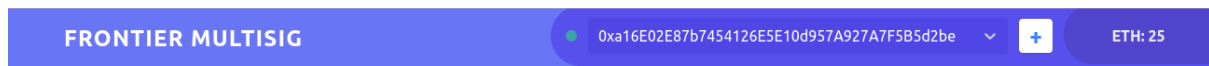


#### 4. Viewing your wallets

Once you have created a wallet you will be able to select it as active from the top bar. The drop down menu will show all the wallets you have created.



Once one is selected, the red pulsing light will turn to green to tell you you have successfully selected a wallet as active.



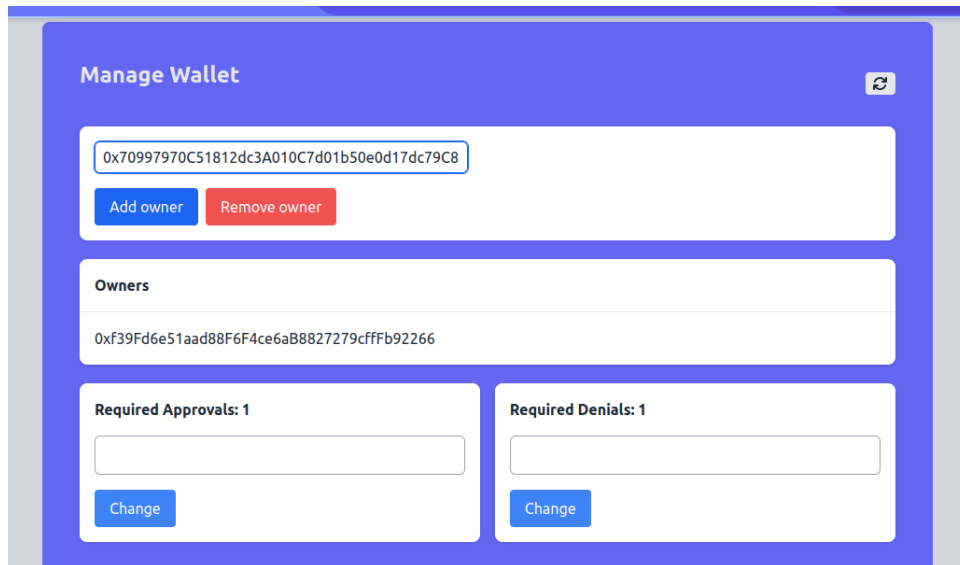
## 5. Adding funds to your wallet

Once you have a wallet selected as active, navigate to the Dashboard by using the sidebar. From here you will see a deposit section. Here you can enter the amount of Ethereum you would like to deposit. The funds will be deposited from your connected Metamask wallet, into your multisignature wallet. Once you have entered the amount you would like to deposit, press the blue deposit button and once again Metamask will pop up and ask you to complete the transaction. Your balance will automatically update in the top right corner of the screen once the funds have been sent.

The screenshot shows a web application interface for managing a wallet. At the top, a dark blue header bar contains a green status indicator, a wallet address '0xa16E02E87b7454126E5E10d957A927A7F5B5d2be', a dropdown arrow, a blue square button with a white plus sign, and a balance display 'ETH: 25'. Below the header, the main content area is divided into a sidebar on the left and a central panel. The sidebar contains two empty white input fields. The central panel features a 'Deposit' section with a bold title, a label 'Deposit Amount (ETH):', a white input field with a light blue border, and a blue button labeled 'Deposit'.

## 6. Add and Remove owners

To add or remove owners from your wallet, navigate to the wallet settings tab using the sidebar. From here you will see a section with *Add Owner* and *Remove Owner* buttons and a text box. In the text box you will enter the address of the wallet you would like to add, and follow the same process for removing someone from the wallet. Once you have done this you will see the list of wallet owners updated in front of you. Please note the original owner, who first created the wallet, cannot be removed.



The screenshot displays the 'Manage Wallet' interface. At the top, the title 'Manage Wallet' is shown next to a refresh icon. Below this is a text input field containing the hexadecimal address '0x70997970C51812dc3A010C7d01b50e0d17dc79C8'. Underneath the input field are two buttons: 'Add owner' (blue) and 'Remove owner' (red). A section titled 'Owners' follows, featuring a list with one entry: '0xf39Fd6e51aad88F6F4ce6aB8827279cfffB92266'. At the bottom, there are two side-by-side sections. The left section, 'Required Approvals: 1', has an input field and a 'Change' button. The right section, 'Required Denials: 1', also has an input field and a 'Change' button.

## 7. Submit a transaction

To submit a transaction, head to the Dashboard using the sidebar. From here you will see a section where you can enter the address you would like to send money to, the amount you would like to send, a title and a description. It's important that you enter a good title and description to allow your fellow wallet owners to understand what the transaction is for. Once you have entered all the relevant information, hit the submit transaction button at the bottom of your screen. This will initiate the transaction and put it in the pending transactions list, where it will be voted on by the wallet owners.

### Submit Transaction

**Address:**

**Amount:**

**Transaction Title:**

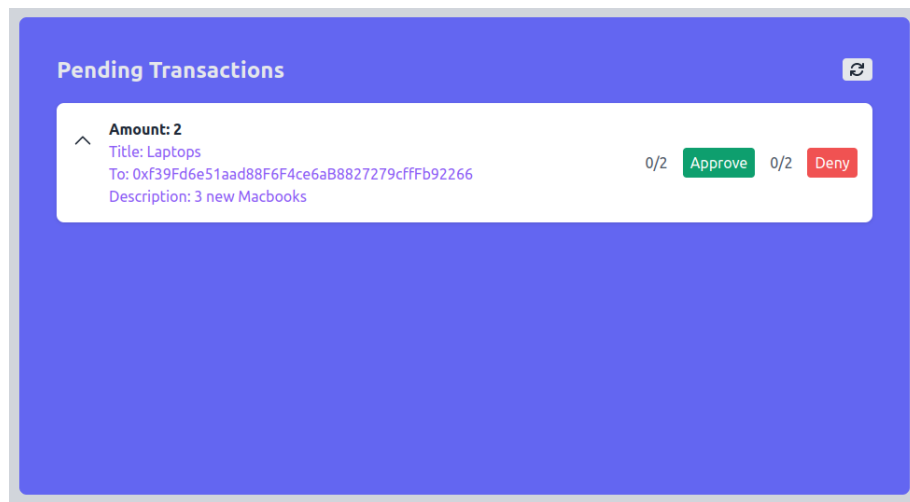
**Description:**

**Submit transaction**



## 8. Approving and Denying Transactions

In order for a transaction to be completed or cancelled, consensus must be reached by the wallet users through the voting tab. This can be found by navigating to the Pending Tx tab on your sidebar. From here you will see the currently pending transactions. There will be information showing such as the amount and title, which can be expanded to show the address and description if you press the arrow button. You can then vote on the transaction. You can see the current number of approvals and denials as well as the number required for the transaction to be completed or cancelled. By hitting the approve or deny button you will be able to cast your vote.

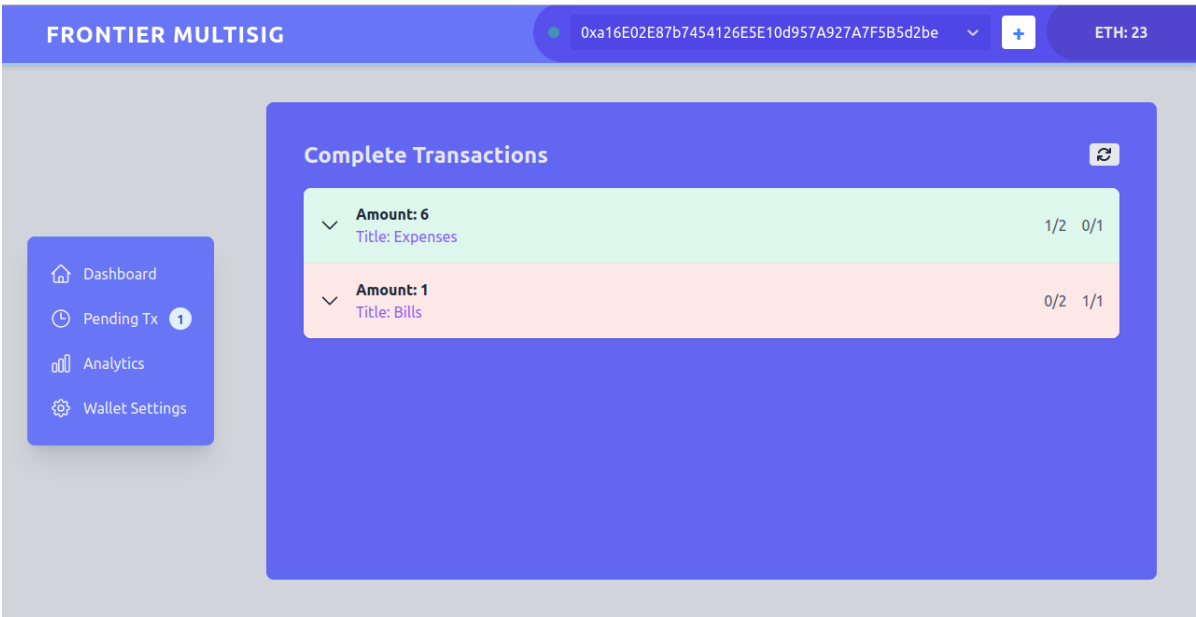


Changed your mind? Simply press the option you want to change your vote to and your previous vote will be rescinded, as long as the transaction hasn't already been voted through.

Please note, the original creator of the wallet has more power than the other users in the wallet. When they vote, the transaction will be executed or denied, even if the full quota has not been reached.

## 9. Viewing your Transaction History

To view your transaction history, simply head over to the analytics tab using the sidebar. From here you will be presented with all the completed transactions. The rejected ones will show in red and the successful ones will show in green. Similar to the pending transactions page, you can expand each transaction to see more data about it.



## 12. Security & Best Practices

When using the Frontier Multisig, it's essential to prioritise the security of your funds and personal information. By following these best practices, you can help ensure that your assets remain protected and your experience with the application is as smooth as possible:

1. **Safeguard your private keys:** Your private keys grant access to your wallet and its assets. Make sure to keep them secure and never share them with anyone. It's a good idea to store your private keys offline, using a hardware wallet or cold storage solution. This way, you can minimise the risk of theft or loss.
2. **Use a strong, unique password:** When setting up your Metamask account or any other wallet, choose a strong and unique password that you don't use elsewhere. A strong password should be at least 12 characters long and include a mix of uppercase and lowercase letters, numbers, and special symbols.
3. **Stay vigilant against phishing attacks:** Be cautious when clicking on links or downloading attachments from unfamiliar sources. Phishing attacks can lead you to fake websites or install malicious software on your device, compromising your security. Always double-check the URL and the source of the communication before proceeding.
4. **Keep your software up to date:** Regularly update your browser, Metamask extension, and any other software you use in conjunction with the Frontier multisignature wallet application. Updates often include security fixes that can protect you from potential vulnerabilities.
5. **Monitor your wallet activity:** Regularly review your wallet's transaction history to ensure that all transactions are legitimate. If you notice any suspicious activity, take immediate action to secure your wallet.
6. **Only add trusted users:** Don't add users to your wallet that you don't completely trust. When granted access to your wallet, users can participate in voting to approve or deny transactions, so they should only be users you can trust

By following these security best practices, you can minimise the risks associated with managing your cryptocurrency holdings and enjoy a more secure experience using the Frontier Multisig.