

Elephant Wallet Multi-signed Wallet PC V...

The Elephant Wallet now supports ELA multi-sign wallet! At the same time, the Elephant Wallet is also compatible with the previous web version of the multi-sign wallet.

Currently supported by the PC version, the Elephant Wallet for ELA multi-sign wallets starts with the following versions:

- Android version: V1.6.0
- iOS version: V1.5.3

Please download and update the version of the Elephant Wallet, here is the download link: <https://elephant.app/>

ELA multi-sign wallet PC version link: <https://jointaccount.elephant.app/>

This document is mainly introduced from the following aspects, taking three people A, B, C as an example:

- Create an ELA multi-sign wallet
- ELA multi-sign wallet payment

Create an ELA multi-sign wallet

There are three people (A, B, C) who want to create an ELA multi-signature wallet:

- A sends a URL including his own public key to B;
- B adds his own public key, and then sends the URL including the public keys of A and B to C;
- C adds his public key and then sends the URL including all three public keys to A and B, and then A, B, and C can create an ELA multi-signature wallet together.

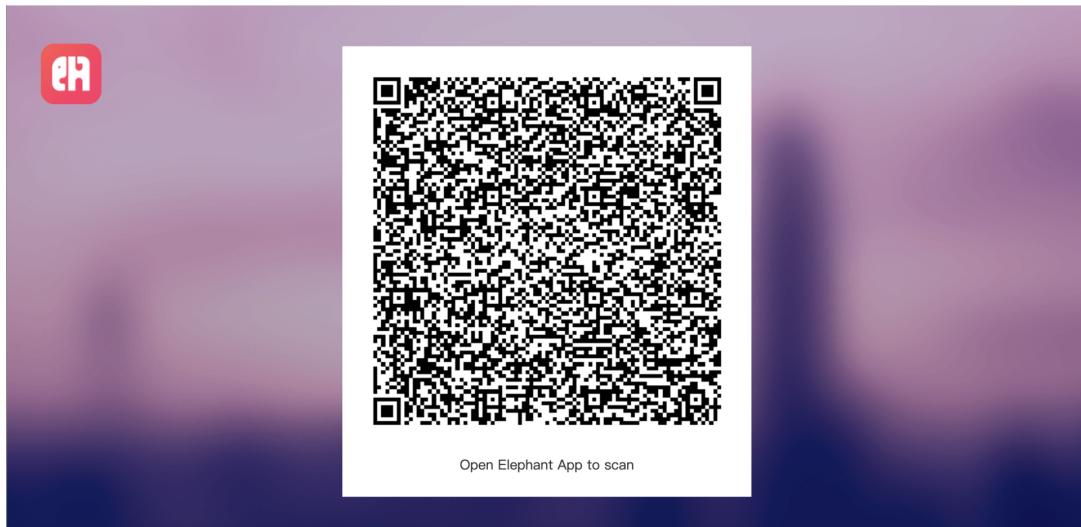
The logic is: Each participant passes the accumulated public key URL one by one, the last participant sends the url including all the public keys to all previous participants, then everyone can create a multi-signature wallet together.

Steps are as follows:

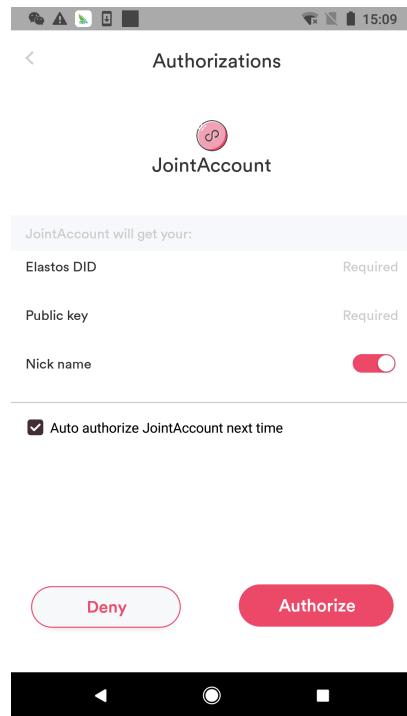
1. A opens the link on a browser:<https://jointaccount.elephant.app/> , enters the multi-signature wallet home page:

[+ Create a new wallet](#)

Click the "+ Create a new wallet" button, jump to the QR code interface.



Open the Elephant wallet, tap scan button in the upper-left corner of the Elephant Wallet DID tab, scan the QR code above. Then the authorization interface will pop up:



After clicking "Authorize" to authorize, the PC browser interface jumps to the creation of the wallet interface. By default, A's public key is displayed on that interface. A can

copy the URL including his public key by clicking "["Invite"](#)" button, and then share the URL with B through 3rd-party tools (e.g. Wechat, Telegram, Email, etc.).

The screenshot shows the 'ELA Joint Account' interface. At the top, there is a blue header bar with the title 'ELA Joint Account'. Below the header, there is a list of public keys under the heading 'ela'. The first public key listed is '02850ff33b13e6671df7ca599ef41976eb432f143f714027531bacc7fa4c8b324b' with the placeholder 'Your Nickname'. To the right of this entry are two buttons: 'Copy' and 'Add'. Below this list, there is a summary section with the text 'Total public keys: 1' and 'Need public keys: - 2 +'. At the bottom of the interface are two buttons: 'Invite' (in a white box) and 'Create' (in a blue box).

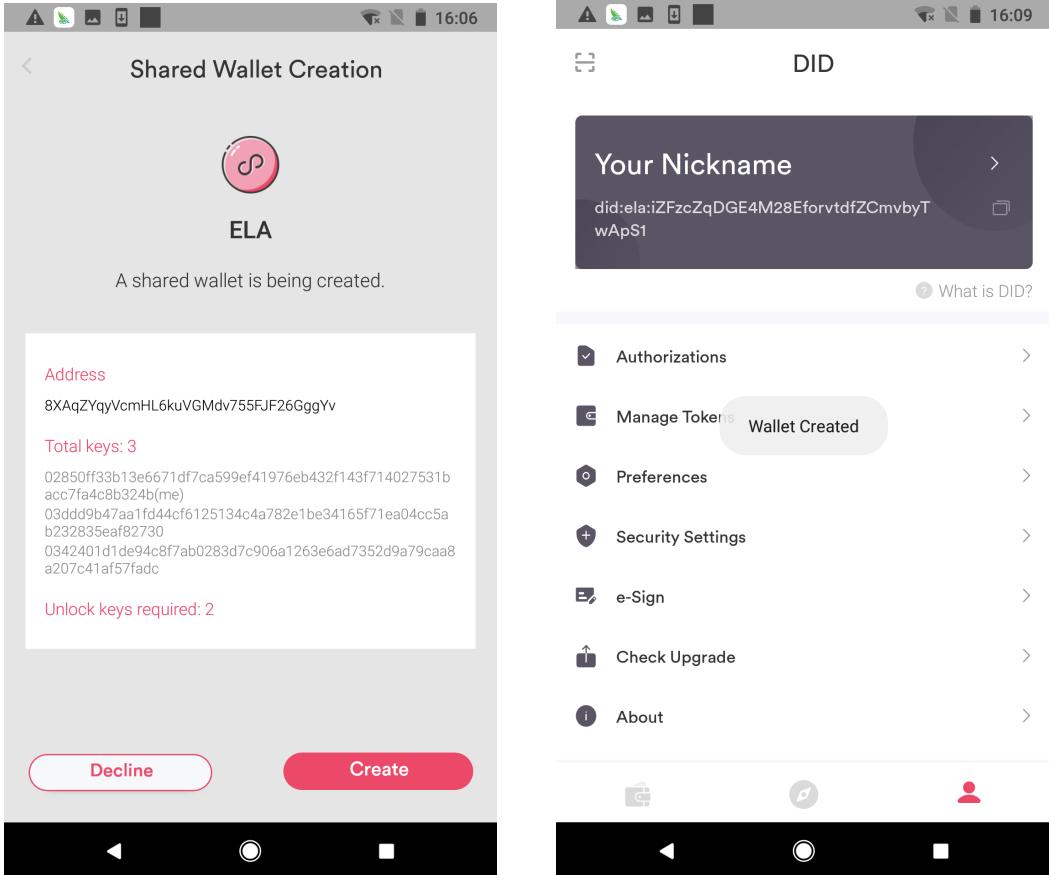
2. B copies the information shared by A, pastes it on browser, it goes to QR code interface. After B scans and authorizes it through the Elephant wallet, it goes to the 'Create Wallet' interface (It displays the public keys of A and B), click "["Invite"](#)" button, copy the URL including the public keys of A and B, and then pass it to C through 3rd-party tools.

The screenshot shows the 'ELA Joint Account' interface. The layout is identical to the previous one, but now it displays two public keys under the 'ela' heading. The first is '02850ff33b13e6671df7ca599ef41976eb432f143f714027531bacc7fa4c8b324b' and the second is '03ddd9b47aa1fd44cf6125134c4a782e1be34165f71ea04cc5ab232835eaf82730'. Both have the placeholder 'Your Nickname' next to them. Each entry has a 'Copy' button to its right. Below the list, the summary shows 'Total public keys: 2' and 'Need public keys: - 2 +'. The 'Invite' and 'Create' buttons are at the bottom.

3. C copies the information shared by B, pastes it on browser, it goes to the QR code interface. After C scans and authorizes it through the Elephant wallet, it goes to the 'Create Wallet' interface (It displays the public keys of A, B, and C).

The screenshot shows the 'ELA Joint Account' interface. It now lists three public keys under the 'ela' heading: '02850ff33b13e6671df7ca599ef41976eb432f143f714027531bacc7fa4c8b324b', '03ddd9b47aa1fd44cf6125134c4a782e1be34165f71ea04cc5ab232835eaf82730', and '0342401d1de94c8f7ab0283d7c906a1263e6ad7352d9a79caa8a207c41af57fad'. Each has the placeholder 'Your Nickname' next to it. Each entry has a 'Copy' button to its right. Below the list, the summary shows 'Total public keys: 3' and 'Need public keys: - 2 +'. The 'Invite' and 'Create' buttons are at the bottom.

4. C clicks the "Create" button of the creation interface, and it goes to the QR code interface (not shown here). C scans the QR code using the Elephant wallet, the mobile phone goes to the authorization interface. After this click "Create" button, showing a toast message "Wallet Created", then it goes to the DID interface of the Elephant wallet.



At the same time, on PC side, it goes to the detail interface of the wallet:

Index	From	To	Memo	Status	Transaction Time
-0	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	to me	Sent	2019-10-10 11:13:13
-0.001	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	EKyU79bxoVWIAzSh1L 58V2PjSk1FzkSt		Sent	2019-10-09 18:39:09
-0.000101	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	EdyoqlJokdTDrIvxVbTu NXGMd3EcpxA	testtest	Sent	2019-10-08 11:34:27
-0.000123	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	EdyoqlJokdTDrIvxVbTu NXGMd3EcpxA	test multi	Sent	2019-10-04 14:00:54
-0	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	multi	Sent	2019-10-04 13:54:26
-0.011	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	EKyU79bxoVWIAzSh1L 58V2PjSk1FzkSt	test multi	Sent	2019-10-04 13:00:02
-0	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	test test	Sent	2019-09-30 08:15:25
-0	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	testhhhhhh	Sent	2019-09-19 10:59:29
-0.00010001	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	EKyU79bxoVWIAzSh1L 58V2PjSk1FzkSt	多签测试/test	Sent	2019-09-17 15:02:13
-0.000121	8XAqZYqyVcmHL6kuVG Mdv755FJF26GggYv	EdyoqlJokdTDrIvxVbTu NXGMd3EcpxA	test测试ios	Sent	2019-09-17 14:30:26

5. Click the "Share" button, copy the URL including the public keys of A, B, and C, then share the information with A and B.
 6. A and B copy the URL sent by C, and after pasting it on the browser, the interface in step 3 will show up, then step 4 will complete the creation of the multi-signature wallet.(Till now, the multi-signature wallet is created successfully.)

ELA multi-sign wallet payment

Steps are as follows:

1. A initiates a payment request

In the detail interface of A's multi-signature wallet, click the “Send” button to enter the sending interface:

Balance: 0.08643888 ELA

Send to: Please enter ELA receive address

Amount: Input your amount

Memo: Input your memo

Miner Fee: 0.0000486 ELA

Send

Fill in the ELA address, the number of transmissions, and memo (optional). After fill-in (as shown below), click “Send” button, it goes to a QR code interface (not shown here).

Balance: 0.08643888 ELA

Send to: EdyqqJcdkTDtfkvxBvTuNXGMdB3FEcpXA

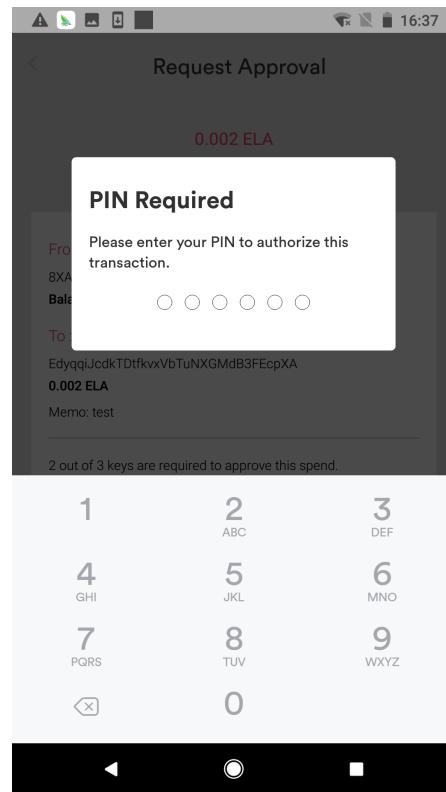
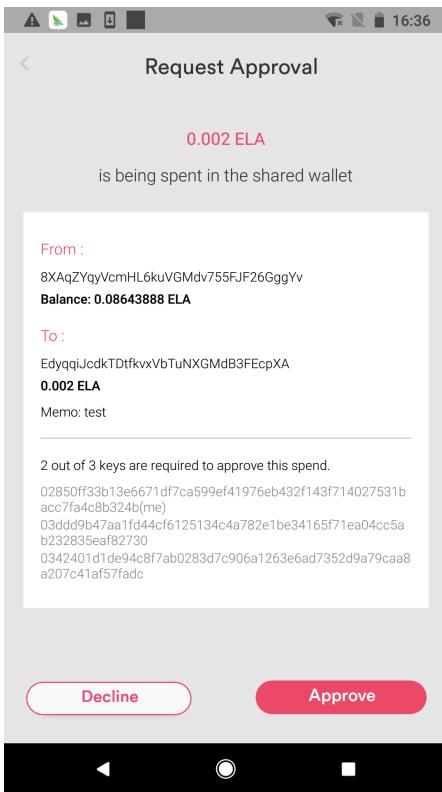
Amount: 0.002

Memo: test

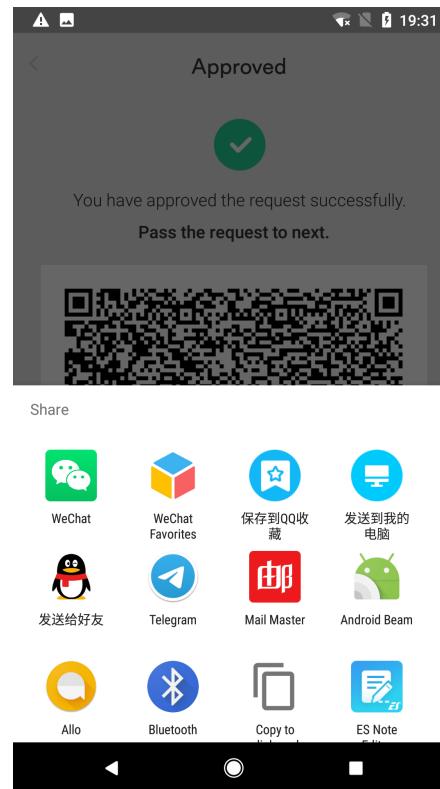
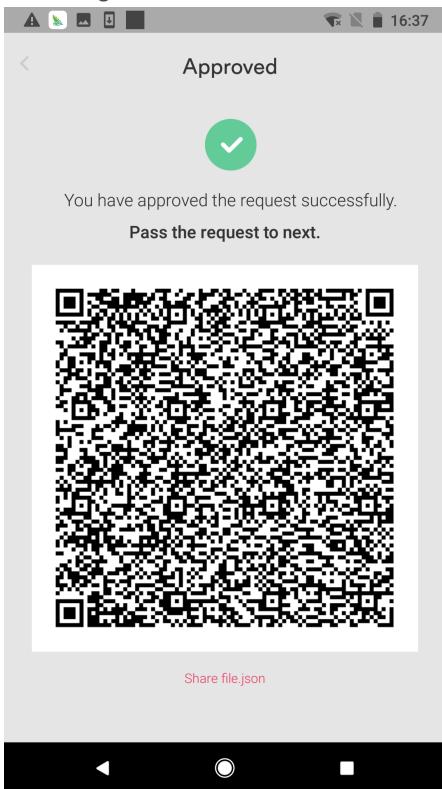
Miner Fee: 0.0000486 ELA

Send

A scans the generated QR code through the Elephant wallet, it goes to the approval request interface. Click “Approve” button then enter the PIN code of wallet.



After PIN code verification, the authorization is successful. The current interface will display a dynamical QR code. There will be a button "["Share file.json"](#)". Click "["Share file.json"](#)" to share the json file with other participants to complete the creation of the multi-signature wallet.

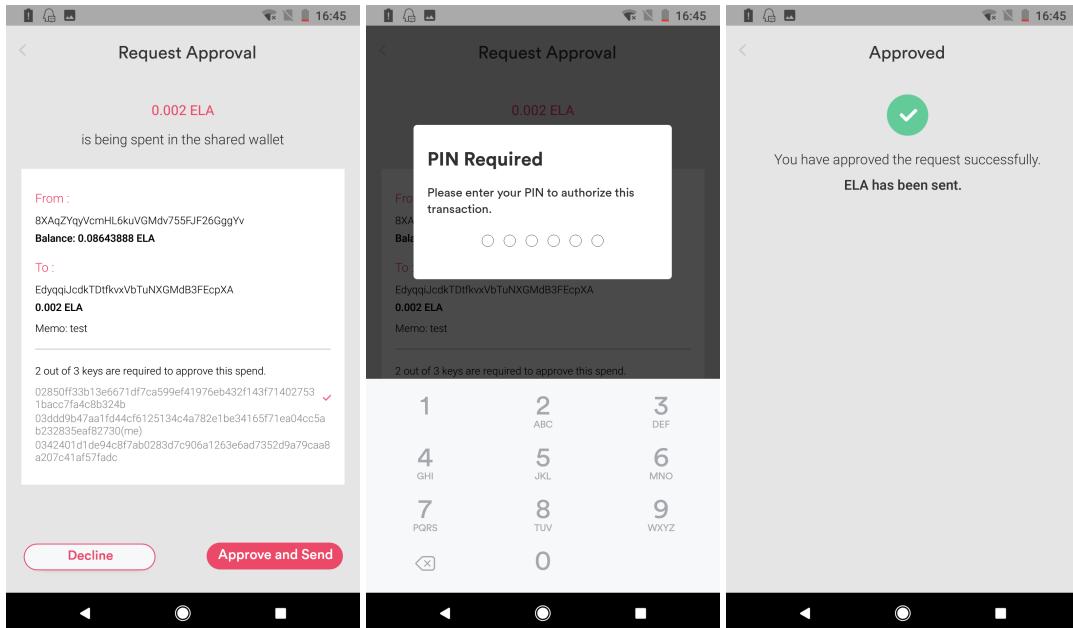


2. B Approved payment

B scans the QR code shared by A through the Elephant wallet (or by opening the json file shared by A), it goes to approval request interface (It shows that A already approved the payment). Click "["Approve and Send"](#)" button then enter the PIN code of wallet.

After PIN code verification, you will see the message "You have approved the request successfully, ELA has been sent." (Since this multi-signature wallet is 2-3 wallet,

meaning at least 2 out of 3 approvals are required to approve the payment.)



3. You can view the transaction in the '[History](#)' on the right side of the ELA Multi-Sign Wallet Details page.

[**ELA Joint Account**](#)

History					
ELA	From	To	Memo	Status	Transaction Time
-0.002	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EdyqqJcdkTDtfkvxBtUNXGMd3FEcpXA	test	Sent	2019-10-10 16:46:21
-0	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	to me	Sent	2019-10-10 11:13:13
-0.001	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EKyZU79bxWfAzSh1L58VzPjSk1FzkSt		Sent	2019-10-09 18:39:09
-0.000101	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EdyqqJcdkTDtfkvxBtUNXGMd3FEcpXA	testtest	Sent	2019-10-08 11:34:27
-0.000123	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EdyqqJcdkTDtfkvxBtUNXGMd3FEcpXA	test multi	Sent	2019-10-04 14:00:54
-0	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	multi	Sent	2019-10-04 13:54:26
-0.011	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EKyZU79bxWfAzSh1L58VzPjSk1FzkSt	test multi	Sent	2019-10-04 13:00:02
-0	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	test test	Sent	2019-09-30 08:15:25
-0	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	testhhhhhhh	Sent	2019-09-19 10:59:29
-0.00010001	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EKyZU79bxWfAzSh1L58VzPjSk1FzkSt	多签测试test	Sent	2019-09-17 15:02:13

Click on a record to view details:

[**ELA Joint Account**](#)

History					
ID	ELA	From	To	Status	Transaction Time
-0.002	-0.002 ELA	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EdyqqJcdkTDtfkvxBtUNXGMd3FEcpXA	Sent	2019-10-10 16:46:21
-0	-0 ELA	NetWork Fee	0.0000486 ELA	Sent	2019-10-10 11:13:13
-0.001	-0.001 ELA	Total Cost	0.0020486 ELA	Sent	2019-10-09 18:39:09
-0	-0 ELA	Confirmed in Block	484694	Sent	2019-10-04 14:00:54
-0.00010001	-0.00010001 ELA	Transaction ID	2ccf0b3c842a973f...d187f9a5989f0662cc	Sent	2019-10-04 13:54:26
-0	-0 ELA	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EKyZU79bxWfAzSh1L58VzPjSk1FzkSt	test multi	2019-10-04 13:00:02
-0	-0 ELA	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	test test	2019-09-30 08:15:25
-0	-0 ELA	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	testhhhhhhh	2019-09-19 10:59:29
-0.00010001	-0.00010001 ELA	8XAqZYqyVcmHL6kuVGmDv755FJF26GggYv	EKyZU79bxWfAzSh1L58VzPjSk1FzkSt	多签测试test	2019-09-17 15:02:13

Payment approval rules for ELA multi-sign wallet:

The payment approval is One-By-One. That is, it must be done one by one either via json file or QR scanning.

e.g. It is 3–5 multi-signature wallet. 5 people create a wallet and need 3 people to approve the payment.

A approves the request at first, B needs to scan the QR code from A, then C needs to scan the QR code from B. The same rule applies using json file to approve the request.

Tips

- **How to use the new ELA multi-sign wallet for the mnemonic of the multi-sign wallet on the web version?**

Because the web version of the multi-sign wallet and the Elephant Wallet--ELA multi-sign wallet are signed differently, the two versions are not supported for signing transactions.

Users of the web version with multiple wallets can import mnemonics into the Elephant Wallet and authorize the use of ELA multi-sign wallet PC version through the Elephant Wallet. It should be noted that the relevant participants of the same multi-sign wallet need to do this.

- **View all participant public keys for ELA multi-signed wallets**

On the details page of the ELA multi-sign wallet, click the "[View](#)" button behind the "[Total public keys](#)" on the left to enter the Public Key List page to view all the public keys of the multi-signed wallet.

- **Entrance to the transfer transaction**

There are two entrances to the transfer transaction: one is to enter the send interface on the ELA multi-sign wallet details page by clicking "[Send](#)"; the other is to select the corresponding wallet from the displayed multi-sign wallet list on the ELA multi-sign wallet homepage, click "[Send](#)" to enter the sending interface.

- **View ELA Multi-Sign Wallet Address**

On the details page of the ELA multi-sign wallet, you can view the wallet address; on the home page of the ELA multi-sign wallet, display the multi-ticket wallet list, select the corresponding wallet, and click "[Receive](#)" to enter the receiving page to view the address.