# **Gnosis Step-by-Step Guide**

# 1, Creating a Gnosis Safe Multi-Sig Wallet

Click on <a href="https://gnosis-safe.io/app/">https://gnosis-safe.io/app/</a> to access the application on desktop.

## (1) Select Network

Ensure that you have selected the Ethereum network.

← → C ( m gnosis-saf	e.io/app/welcome		🏻 🗅 🌣 🖉 🗮 🔤 🖓	0 * 🛛 👴 enff) (#ff i)	
😋 Gnosis Safe			Connected	✓ Ethereum ∧	
I Jun.ch	Welcome to Gnosis Safe. Gnosis Safe is the most trusted platform I Here is how to get started:	un chen un chen to manage digital assets.		Ethereum 🗸	
	Create Safe Create a new Safe that is controlled by one or multiple owners. You will be required to pay o network fee for creating your new Safe + Create new Safe	Load Existing Safe Already have a Safe ar want to access it from a different device? Easily load your Safe using your Safe address. Add existing Safe		IND Snows Chain Energy Web Chain Addisory Automatic	
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## (2) Connect Wallet

You will need to connect an existing wallet to Gnosis Safe to create an account.

Gnosis supports a variety of digital wallets. Users can select their preferred wallets to be connected to your Gnosis Safe account. Please ensure that you have some ETH in the wallet to pay for transaction fees that may be incurred during the setup.



## (3) Creating Gnosis Safe Wallet

Select "Create new Safe" to begin.

### Welcome to Gnosis Safe.

Gnosis Safe is the most trusted platform to manage digital assets. Here is how to get started:

#### **Create Safe**

Create a new Safe that is controlled by one or multiple owners. You will be required to pay a network fee for creating your new Safe.

# + Create new Safe

#### Load Existing Safe

Already have a Safe or want to access it from a different device? Easily load your Safe using your Safe address.

🗔 Add existing Safe

<	Create new Safe					
0	Connect wallet & select network Wallet connected.					
	Creating a Safe on Ethereum					
jun.che						
		Cancel	Continue	]		
2	Name					
jun <b>3</b>	Owners and Confirmations					
4	Review					

# Name your Safe and click on "Continue".

< • 	Create new Safe					
	You are about to create a new wallet a name. This name is onl parties. The new Safe will ONLY Name of the new Safe Safe name ApexPro-Fee By continuing you consent to the	Gnosis Safe wallet with one or ly stored locally and will never ly be available on Ethereum Ethereum ethereum of use and privacy po	more owners. First, let's give t be shared with Gnosis or any jun chen jun chen	your new / third		
		Back Cont	inue			
3	Owners and Confirmations Review					

Enter the names of the other account owners and their respective wallet addresses to Safe. You can pre-set the number of owners who are required to authorize any transactions (e.g. withdrawals) at the bottom of the page.

3 Ow	ners and Confirmations				
	Your Safe will have one o details, but you are free to Add additional owners (e confirm a transaction bef secure your Safe is. <u>Learn</u>	or more owners. We have prefilled the first owner o change this to a different owner. a.g. wallets of your teammates) and specify how r fore it gets executed. In general, the more confirm about which Safe setup to use 2. The new Safe	with your connected wallet many of them have to mations required, the more e will ONLY be available on		
n.chen	Junichen Junich				
	NAME	ADDRESS			
	Owner Name	Owner Address	The set lunch		
	alice	0x4626eb76a7c2896645B0117614Ec0555e6E3	a180 🥑 🔛		
	Owner Name bob	Owner Address 0xAACA5883cf16D1f574a7EeAC34F45BE88271	14983 🥥 🔡 🙃		
in.chen	- Owner Name	- Owner Address	jun chen Junchen		
	lucy	0x46a91740FeA63231dd891a31E32b2a60e603	95De 🥑 🔡 🕆		
		+ Add another owner			
	Any transaction requires the	confirmation of:			
n.chen	1 out of 3 owner(s)				
	2				
	3	Back Continue			

Once all fields have been filled in accurately, click "Create" to proceed with the creation of your Safe wallet.

<	Create new Safe					
•	Connect wallet & select network					
un cher	Name junichen junichen					
Ø	Owners and Confirmations					
4	Review					
	Details	3 Safe owners				
	Name of new Safe magnificent-ethereum-safe	alice eth:0x4626eb76a7	c2896645B0117614Ec0555e6E3a1	180 D 2		
	Any transaction requires the confirmation of: 2 out of 3 owners	eth:0xAACA5883c	f16D1f574a7EeAC34F45BE882714	983 🗗 🔼		
		eth:0x46a91740Fe	463231dd891a31E32b2a60e6039	5De 🗗 🛛		
	You're about to create a new currently connected wallet. The	Safe on Ethereum and w	vill have to confirm a transac imately 0.01488 ETH. The exe	ction with your act amount will		
		be determined by you	r wallet.			
		Back	Create			

Once the wallet creation process is complete, download and access your Safe wallet.

# 2, Transferring USDC to Your Gnosis Safe Wallet

We recommend that you test the wallet out first with a small transaction amount, e.g. 100 USDC. Once the transfer is complete, your balance will be updated on the Gnosis Safe wallet dashboard to reflect the new transaction.

Gnosis Safe						
Polygon	Dashboard					
matic:0x2334CFB0 B 0 2 Total Balance 2,916.53 USD New Transaction	2/3 matic:0x23342Fd408C987444534dDf96e Tokens NFTs 2 0	BEO8Fa6660CCFB0	Polygon View Assets	Ç S o <sup>lan chen</sup>		
1 Home	Transaction Queue		View All >	Conne		
(O Assets 🗸		chen Jum eile				
†↓ Transactions ∨	(			4		
Address Book						
	This Safe has	s no queued transactions				
A Sattinge 🗸						

# 3, Generating ApexPro L2key Account

(1) Use SDK to generate an Ethereum address and private key

### (2) With reference to ApeX SDK:

- Authorize the Ethereum private key to generate Stark Pri and Stark Key (pubX)
- Use the RegisterAccount method to generate the account ID (enter your Gnosis Safe wallet address in the address field during registration)

(3) Proceed with the Contract Interaction step from the Gnosis Safe multi-sig wallet [refer to section (4)] and use the contract registerEthAddress method to pair the Gnosis Safe wallet with L2 data

(4) After the link is established, deposits or withdrawals of funds on L2 can only be processed successfully via the Gnosis Safe wallet

<b>1v1</b> eth:0x68	CD9155f770C9c30c847	7e4d5A761B56BFfbo	3551 🗗 🙋	ch <sup>en</sup>	
Balance:	DETH			nected v	
Cartantal	↓	/		— Ind Mob	
0xA1D5443	-2FB80A5A55ac804	1C948B45ce4C52	2DCbb	. chen	
_ ABI*					
"outputs": "stateMute "type": "fill	[], ability": "nonpayable", action"			t	
}	Jun chen Jun chen			d <sup>an</sup> ose custom	
]				into a single	
registerEt	nAddress		•	action	
ethKey (address	5)	un chen jun chen		Jun.chen jun.chen	
ethKey (add	dress)				
starkKey (uint25	i6) ————				
starkKey (u	nt256)			anan e 🗖	
starkSignature	bytes) —		jun.chen Jun.		
starkSignat	ure (bytes)				
	ustom data (hex on	coded		3	
Use c	ustorn data (nex en	coded)			

ethKey: Corresponding Gnosis Safe multi-sig wallet address

starkKey: L2 account stark\_key\_pair public\_key

stark\_key\_pair\_with\_y\_coordinate['public\_key']

starkSignature: Authentication signature needs to be generated, refer to python codes

# 4, Authorize USDC Transfers

As deposits will be processed through StarkWare, you will need to authorize the StarkWare contract to transfer your USDC assets.

### C Gnosis Safe Dashboard matic:0x2334...CFB0 88 OP (2) matic:0x23342Fd408C987444534dDf96eE08Fa6660CCFB0 Total Balance 2,894.11 USD View Assets 2 Transaction Queu ↑ Home View All (O Assets ↑↓ Transactions ∨ Address Book Se Apps This Safe has no queued transactions O Setting Safe Apps

## (1) Proceed with a new transaction via Gnosis Safe

# (2) Select "Contract interaction"

## (3) Enter deposit transaction details:

- Enter the USDC contract address: 0xA0b86991c6218b36c1d19D4a2e9Eb0cE3606eB48
- Enter the USDC contract ABI

[{

```
"inputs": [{ "internalType": "address",
```

"name": "spender",

"type": "address" }, {

"internalType": "uint256", "name": "value", "type": "uint256"

```
}], "name": "approve", "outputs": [{
```

```
"internalType": "bool", "name": "", "type": "bool"
```

```
}], "stateMutability": "nonpayable", "type": "function"
```

}]

### (5) Enter parameters as follows:

- Enter the Spender address (StarkWare contract address) as: 0xA1D5443F2FB80A5A55ac804C948B45ce4C52DCbb
- Value: For accuracy, we recommend that you enter the correct deposit amount (to 6 decimal places), e.g. 100 USDC should be entered as 100,000,000

# 5, Making a Deposit via Gnosis Safe

## (1) Trigger a new transaction on Gnosis Safe

🕒 Gnosis Safe					
Polygon	Dashboard			iun chen jun chen	
metie:0x2334CFB0 <b>111 121</b> Total Balance <b>2,894.11 USD</b>	2/3 matic:0x23342Fd40 Tokens	BC987444534dDf96eE08Fa6660CCFB	0 View Assets		
New Transaction ↑ Home () Assets ✓	Transaction Queue	chen Jun chen	View All >	<b>Conn</b> In chen jun chen	
1↓ Transactions ∨ [] Address Book 98 Apps		This Safe has no queued transc	actions	•	
🌣 Settings 🗸 🗸	Safe Apps				

(2) Select "Contract interaction"

	Send				×	Junchen Junchen		
E08Fc		Jun chen Ju	(O Send funds		jun.chen jun.chen	ecte		
			➡ Send NFT	ien jun chen		nd f		
		Jun chen Jun	Contract interaction operation with the second s	n	jun.chen jun.chen			
5	A I				Comp intera	oose c ictions		

## (3) Enter deposit transaction details:

- Enter the StarkWare contract address: 0xA1D5443F2FB80A5A55ac804C948B45ce4C52DCbb
- StarkWare Contract ABI:

```
{
"inputs": [
 {
  "internalType": "uint256",
  "name": "starkKey",
  "type": "uint256"
 },
 {
  "internalType": "uint256", "name": "assetType",
  "type": "uint256"
 },
 {
  "internalType": "uint256", "name": "vaultId",
  "type": "uint256"
 },
 {
  "internalType": "uint256", "name": "quantizedAmount", "type": "uint256"
 }
],
"name": "depositERC20",
```

```
[], "stateMutability": "nonpayable", "type": "function"
 "outputs":
},
{
"inputs": [
 {
  "internalType": "uint256",
  "name": "starkKey",
  "type": "uint256"
 }
],
 "name": "getEthKey",
"outputs": [
 {
  "internalType": "address",
  "name": "".
  "type": "address"
 }
],
 "stateMutability": "view",
"type": "function"
},
{
"inputs": [
 {
  "internalType": "uint256",
  "name": "starkKey",
  "type": "uint256"
 },
 {
   "internalType": "uint256", "name": "assetId",
  "type": "uint256"
 }
],
 "name": "getWithdrawalBalance",
 "outputs": [
 {
  "internalType": "uint256", "name": "balance",
  "type": "uint256"
 }
],
```

```
"stateMutability": "view",
 "type": "function"
},
{
 "inputs": [
  {
   "internalType": "address",
   "name": "ethKey",
   "type": "address"
  },
  {
   "internalType": "uint256", "name": "starkKey",
   "type": "uint256"
  },
  {
   "internalType": "bytes", "name": "starkSignature", "type": "bytes"
  }
 ],
 "name": "registerEthAddress",
               [], "stateMutability": "nonpayable", "type": "function"
 "outputs":
},
{
 "inputs": [
  {
   "internalType": "uint256",
   "name": "starkKey",
   "type": "uint256"
  },
  {
   "internalType": "uint256", "name": "assetId",
   "type": "uint256"
  }
 ],
 "name": "withdraw",
 "outputs": [], "stateMutability": "nonpayable", "type": "function"
]
```

## (4) Select the depositErc20 method and fill in the corresponding parameters:

	Contract interaction Step 1 of 2 Ethereum X	¢			
	1v1           eth:0x68CD9155f770C9c30c847e4d5A761B56BFfbd551           Balance: 0 ETH	n <b>.</b>			
4d5A:	Contract address*	necte			
	ABI* "outputs": [], "stateMutability": "nonpayable", "type": "function" } ]				
Ce	depositERC20 Junchen junchen starkKey (uint256)	ose cu ctions into a s iction			
has n	assetType (uint256) assetType (uint256)				
	vaultId (uint256) vaultId (uint256)	с С			
	quantizedAmount (uint256)	n.chen			
	Use custom data (hex encoded)				
	Junchen jun chen Cancel Review	¢ Ω			

- starkKey: L2 account stark\_key\_pair public\_key
   stark\_key\_pair\_with\_y\_coordinate['public\_key']
- assetType: Corresponding asset type
   0x02893294412a4c8f915f75892b395ebbf6859ec246ec365c3b1f56f47c3a0a5d
- valutId: L2 account to asset pool, account\_id: 351667704786059600
- quantizeAmount: USDC deposit amount, to 6 decimal places e.g. 100 USDC should be entered as 100,000,000

After reviewing the parameters and ensuring that they are correct, confirm the deposit transaction, For other stakeholders involved in the Gnosis Safe wallet, use your personal wallet to authorize the transaction and complete the deposit process.

# 6, Check for Withdrawal Balance

Similar to the steps in section (4), all you need to do is to trigger a new transaction on Gnosis Safe, enter the StarkWare contract address and ABI details.

(1) Select the getWithdrawalBalance method and enter the corresponding parameters; you can check the available withdrawal balance (you will need to remove 6 zeros from the amount):

Contract interaction Step1of2 Ethereum	×			
eth:0x68CD9155f770C9c30c847e4d5A761B56BFfbd551	; j			
- Contract address*	nd			
_ ABI*				
"stateMutability": "nonpayable", "type": "function" } ]	ose ctior into			
getWithdrawalBalance 👻	inchen Inchen			
- starkKey (uint256) starkKey (uint256)				
- assetld (uint256) <sup></sup>	Junichen juniche			
Use custom data (hex encoded)	m.chen			
Cancel Call				

- starkKey: Enter the gnosis-safe multi-sig wallet address, please ensure that this is not the L2 account stark\_key\_pair public\_key
- assetType: Corresponding asset type
   0x02893294412a4c8f915f75892b395ebbf6859ec246ec365c3b1f56f47c3a0a5d

# 7, Initiating Withdrawals

Similar to the steps in section (4) and (5), all you need to do is to trigger a new transaction on Gnosis Safe, enter the StarkWare contract address and ABI details.

(1) Select the withdraw method and fill up the corresponding parameters; this will withdraw all of your assets from L2 into your gnosis-safe wallet:

Contract interaction Step 1 of 2	hereum X			
1v1           eth:0x68CD9155f770C9c30c847e4d5A761B56BFfbd55           Balance: 0 ETH	1 ຜ <sup>ູ້</sup> ເຂົ້ <sup>າງແກະໃນຄາ</sup>			
Contract address* 0xA1D5443F2FB80A5A55ac804C948B45ce4C52D0	Cbb			
ABI* "outputs": [], "stateMutability": "nonpayable", "type": "function" } ]	jun.chen jun.chen ose ctio into			
withdraw				
starkKey (uint256) starkKey (uint256)				
assetId (uint256) assetId (uint256)	jun.chen.jun.chen			
Use custom data (hex encoded)	S			
Cancel Review				
chen				

- starkKey: Enter the gnosis-safe multi-sig wallet address, please ensure that this is not the L2 account stark\_key\_pair public\_key
- assetType: Corresponding asset type
   0x02893294412a4c8f915f75892b395ebbf6859ec246ec365c3b1f56f47c3a0a5d

Attach:

starkWare contract address: 0xA1D5443F2FB80A5A55ac804C948B45ce4C52DCbb usdc contract address: 0xA0b86991c6218b36c1d19D4a2e9Eb0cE3606eB48

assetType value: 0x02893294412a4c8f915f75892b395ebbf6859ec246ec365c3b1f56f47c3a0a5d valutId L2 account to asset pool:

account\_id: 351667704786059600

stark\_key: 0x0270884a62b952837f1ad48bf28559c86060990af3e63019da59dad9cdd76ed0

Fee L2 account to asset pool:

account\_id: 10240000

stark\_key: 0x02382ceace17a59ec674b5ca7109eabc66e4107c7f473492cf192c60f4e17600

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