



# The Universal Account Protocol for Web3 Mass-adoption

[cipher@joy.id](mailto:cipher@joy.id)

# TABLE OF CONTENTS

01

## WAR OF WALLETS

Why wallet is so important to the Web3 mass-adoption

02

## CUTTING EDGE

When Passkey meets Account Abstraction

03

## THE PRODUCT

How JoyID will change the game

04

## PLANS

What will the future look like



01

# WAR OF WALLETS

Why wallet is so important to the Web3 mass-adoption

# The problems



## Mnemonics

What's this?



## Account recovery

Why can't you help find my password?



## Transaction fee

Why should I pay for this?

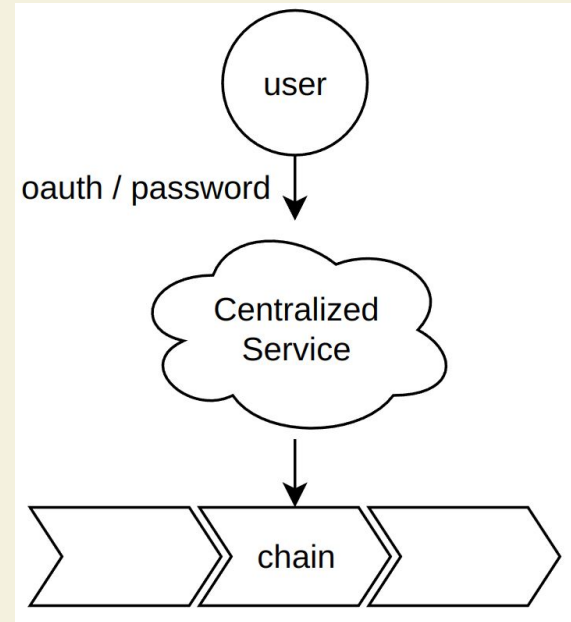
# Solution 1: custodial wallet

## Pros

- Easy to use, recovery
- Chain agnostic

## Cons

- All the cons along with centralization
- Security
- Privacy / regulation / composability



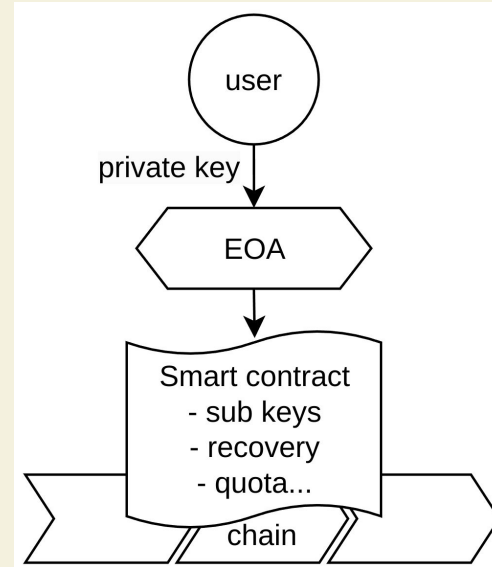
# Solution 2: Contract Account

## Pros

- Account recovery
- Zero tx fee (user side)
- Flexibility

## Cons

- User still need an initial private key
- CA is not 100% compatible with EOA
- Deployment fee and other problems



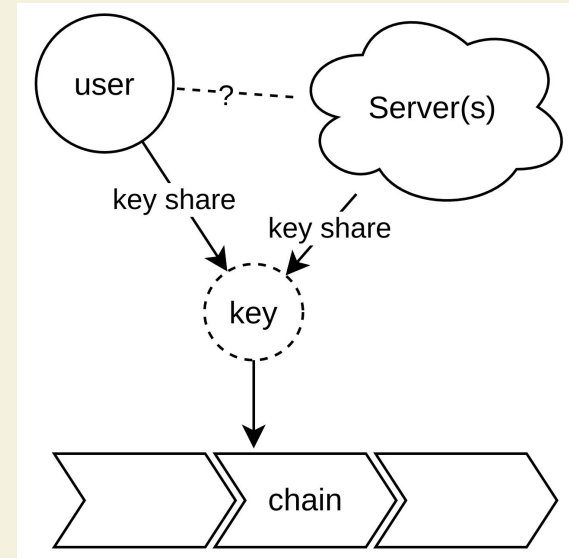
# Solution 3: MPC wallet

## Pros

- Easy to use
- Social recovery
- Chain agnostic

## Cons

- Bonded with the MPC server
- What if the server shutted down
- When lost the key share, how to identify yourself to the server?
- Semi-custodial or fully-custodial



# Recap

- Wallet UE is the biggest barrier to the Web3 mass-adoption
- Mainstream users don't really care about decentralization, but the developers and entrepreneurs care
- Don't be fooled by the wallet services' propaganda





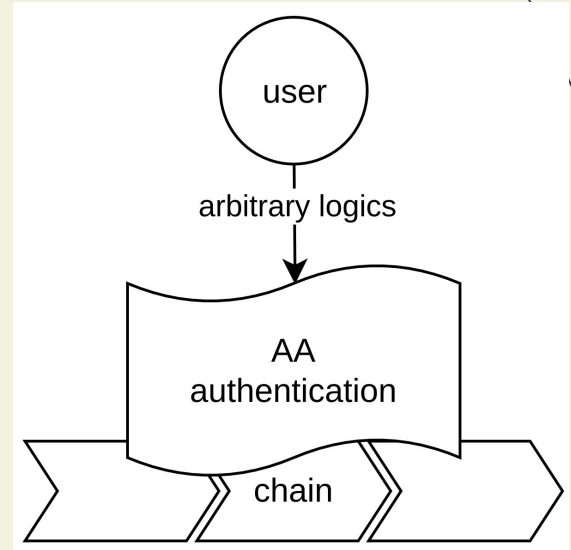
02

# CUTTING EDGE

When Passkey meets Account Abstraction

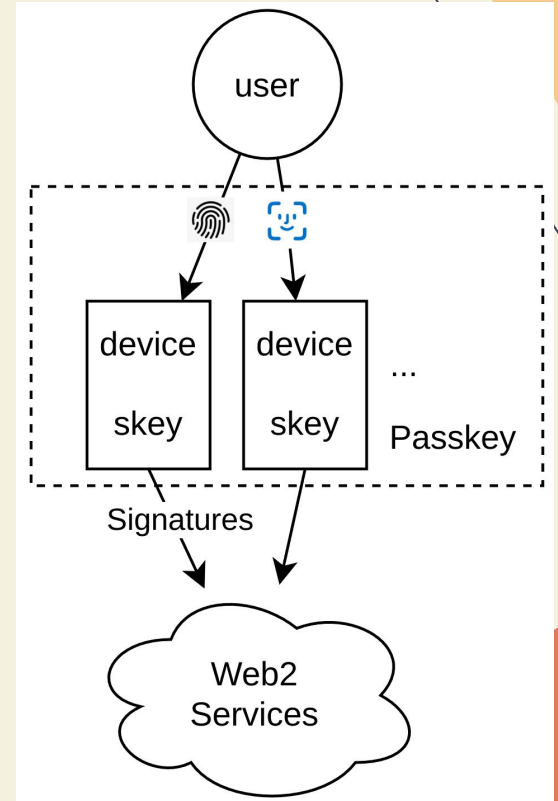
# Account Abstraction

- AA = CA - EOA
- You still need an EOA as an agency to send transactions from CA
- This EOA must provide the transaction fee and use the standard secp256k1 signature
- AA breaks these limitations
- Only a few chains support full-featured AA now



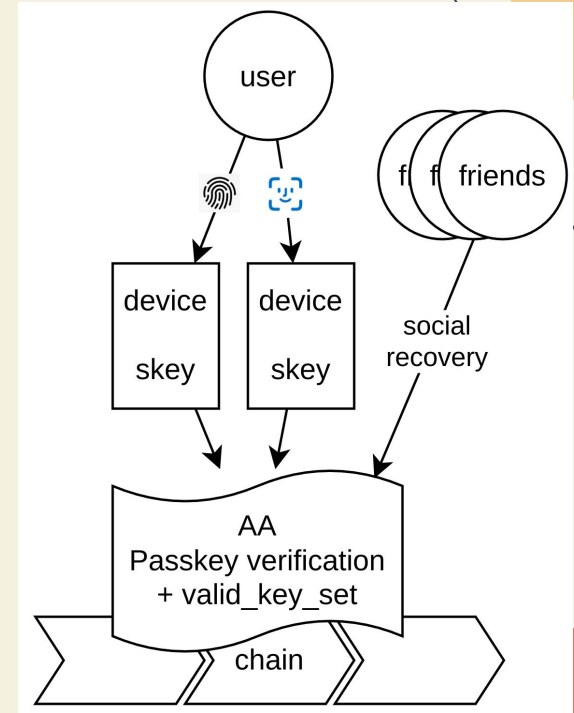
# Passkey

- The next-gen passwordless authentication standard supported by Apple, Google, Microsoft, ...
- Private keys are managed with user side devices, can be only accessed by the users' biometric information
- Compatible with all modern devices, including Android and iOS smartphones, Windows and MacOS desktop computers
- Hardware-level security with incredible convenience
- BUT NOT DESIGNED FOR WEB3



# What if we combine Passkey with AA?

- Passkey is used to generate and manage private keys with biometric sensors
- AA is used to represent the account on-chain, and to manage multiple devices
- AA is also used to verify the signatures signed by Passkey
- Social recovery logics can also be stored in AA in case their devices lost



# Perfect solution

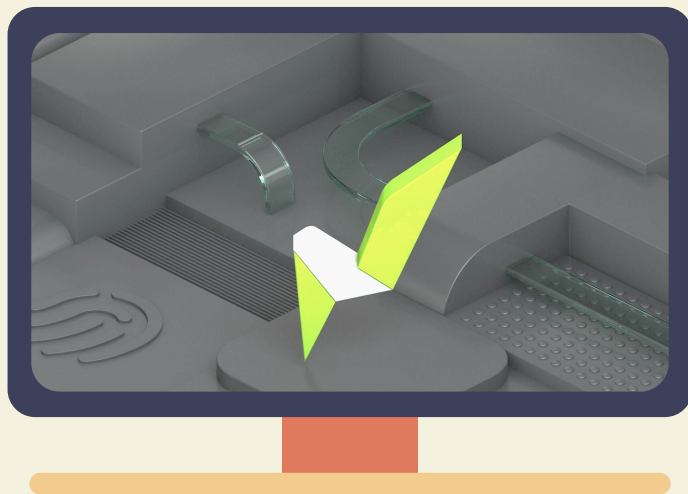
- ✓ No password, no mnemonics, no Email, no phone number
- ✓ Non-custodial
- ✓ Gasless
- ✓ Authentication with biometric sensor
- ✓ Social recovery
- ✓ Web page based, no installation required
- ✓ Decentralized



03

# THE PRODUCT

What will the future look like



<https://joy.id>

# Live Demo

<https://ckb-dapp-demo.joyid.dev/>

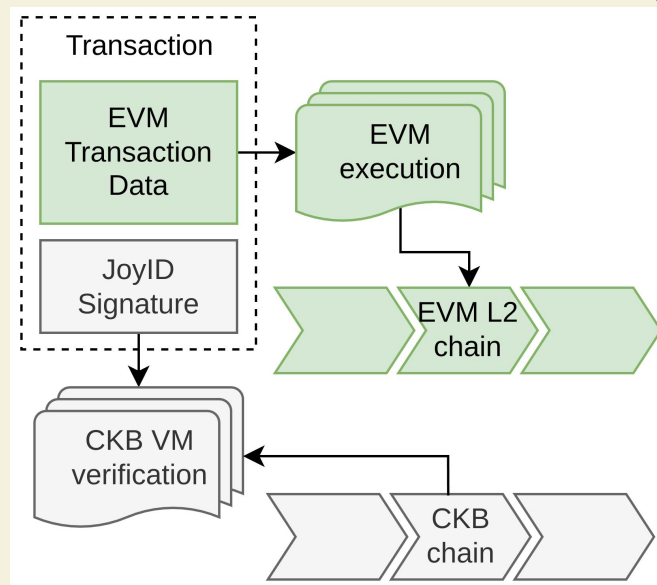




Looks great, but ...  
Does it support EVM?

# Multi-chain support

- Nervos CKB
- Axon
  - Layer 2 sidechain
  - 100% EVM compatibility
  - Very high tx throughput
- Godwoken
  - Layer 2 op rollup chain
  - Almost 100% EVM compatibility
- Other chains



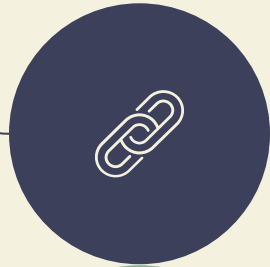
# Components

- Front-end wallet
  - Cross-chain assets management
  - Manage users' keys with Passkey
  - Interact with dapps to sign transactions
- Middleware
  - Data indexer
  - Proof generator
- On-chain smart contract
  - Abstract account
  - Verify signature from Passkey
  - Manage users' key sets and recovery setup

# Fully decentralized and open source

## Smart Contract

Open source  
Open to interact



## Front-end

Open source  
Offline signing  
Non-exclusive



## Middleware

Open source  
Launch your own



## Keys

All controlled by the users





04

# PLANS

How JoyID will change the game

# Roadmap 2023

Q1

JoyID app  
Mainnet launch /  
Integrate .bit

Q2

L2 EVM sidechain  
Testnet launch /  
More L1 dApps /  
Metamask compatibility

Q3

Fundraising  
complete /  
Adoption BD

Q4

L2 EVM sidechain  
Mainnet launch

# We're calling for

## **CKB developers**

Make CKB the universal account layer for the Web3 world

## **Infrastructures**

CEX, Blockchain explorer, NFT data indexer, token tracker, etc

## **EVM projects**

Enlarge the number of your potential users from millions to billions

## **Security guardians**

Token staking and PoS node maintenance



# THANKS!

Feel free to contact us

[cipher@joy.id](mailto:cipher@joy.id)

<https://joy.id>

CREDITS: This presentation template was created by **Slidesgo**, and includes icons by **Flaticon**, and infographics & images by **Freepik**