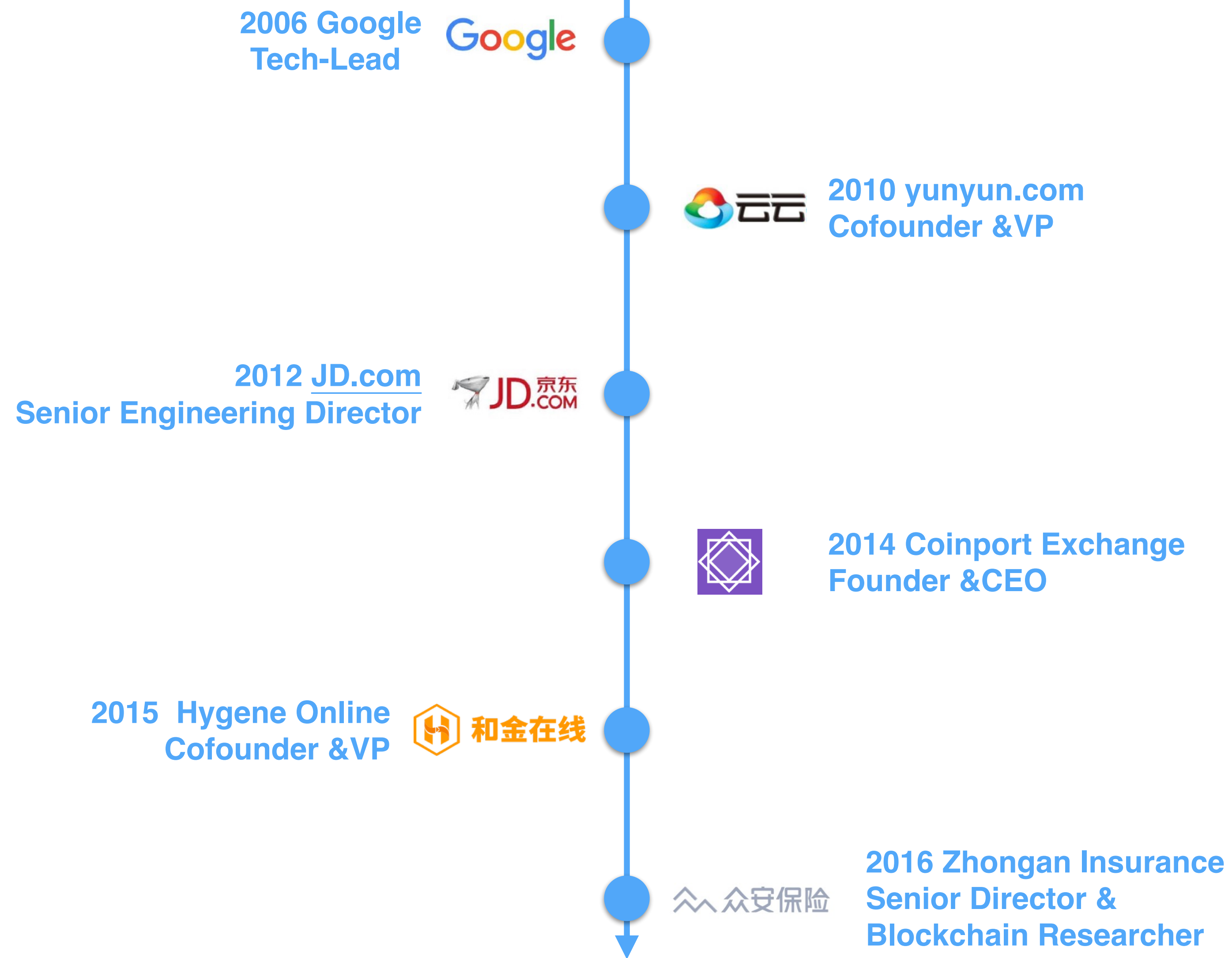


**Loopring**

Decentralized Token Exchange Protocol

Loopring Foundation  
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[daniel@loopring.org](mailto:daniel@loopring.org)



Loopring

**Problems**

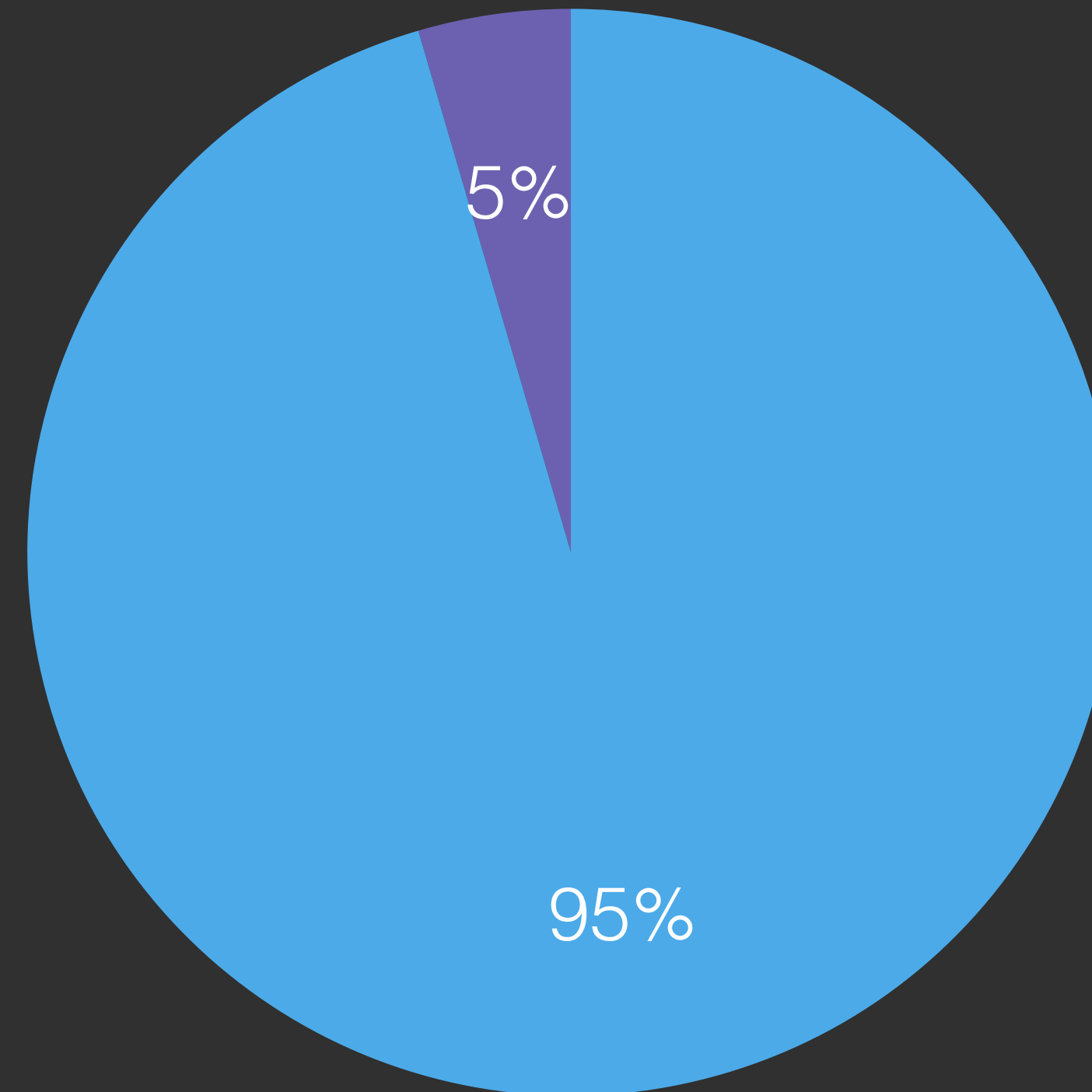


**Solutions**



**Ecosystem**

# Loopring Problems



**\$135B**

**\$6.5B**

<https://coinmarketcap.com>

# Looprng Problems

**Problem#1: Lack of Security**

**Problem#2: Lack of Transparency**

**Problem#3: Lack of Liquidity**

**Loopring**  
Decentralized Token Exchange Protocol

**Problem#1: Lack of Security**

**Problem#2: Lack of Transparency**

**Problem#3: Lack of Liquidity**



## 1. No Custody

No asset deposit or withdrawal. Asset is always held by wallet in owner's own address. Asset not locked by orders and can be spent after orders are placed.

## 2. Settle on Chain

Orders are created and broadcasted off-chain; but settlement are performed on chain using smart-contract. No insider's trading.

## 3. Order Sharing & Ring-Mining

Orders are shared among all ring-miners to form a global virtual order-book with maximum liquidity and minimum spread. Matching is done in a competitive way for near real-time fulfillment.

## Problem#1: Lack of Security

## Problem#2: Lack of Transparency

## Problem#3: Lack of Liquidity

## Mining Example



# Mining Example

*order#1*

originator: address\_X  
selling: 10000 token\_A  
purchasing: 10 token\_B

Miner A



Miner B



*order#2*

originator: address\_Y  
selling: 5 token\_B  
purchasing: 4500 token\_A

Miner C



# Mining Example

order#1

originator: address\_X

selling: 10000 token\_A

purchasing: 10 token\_B

Miner A

order#1

order#2

Miner B

order#1

order#2

order#2

originator: address\_Y

selling: 5 token\_B

purchasing: 4500 token\_A

Miner C

order#1

order#2

# Mining Example

order#1

originator: address\_X

selling: 10000 token\_A

purchasing: 10 token\_B

Miner A

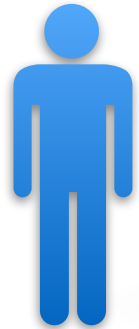


order#1

order#2

sig

Miner B



order#1

order#2


order#2

originator: address\_Y

selling: 5 token\_B

purchasing: 4500 token\_A

Miner C



order#1

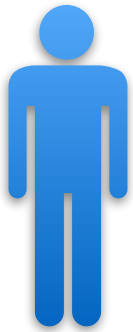
order#2

# Mining Example

Miner A



Miner B



Miner C

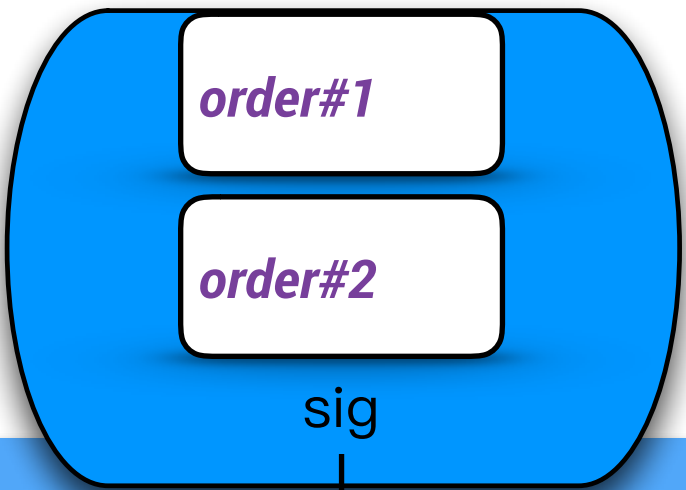


order#1

order#2

order#1

order#2



address\_X

address\_Y

Loopring Contract

Blockchain

Miner A



Miner B



Miner C



order#1

order#2

order#1

order#2

order#1

order#2

sig

address\_X

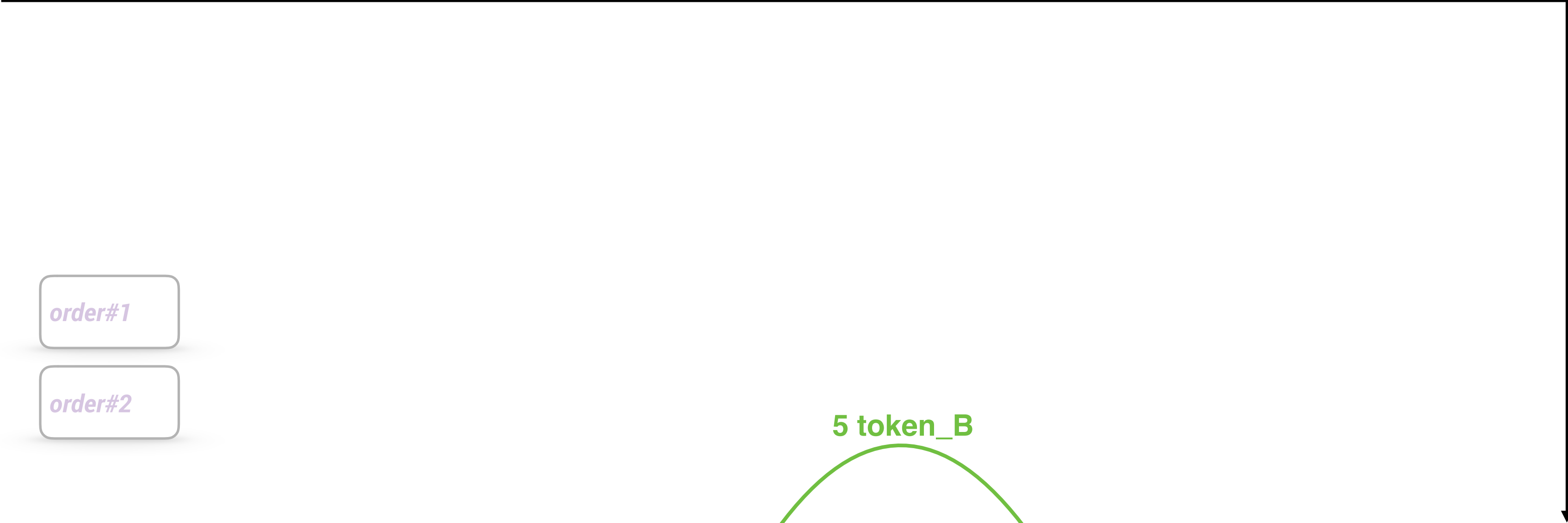
address\_Y

Loopring  
Contract

Blockchain

5 token\_B

4750 token\_A



## Order-Ring Example

*order#1*

originator: address\_X  
selling: 10000 token\_A  
purchasing: 10 token\_B

*order#2*

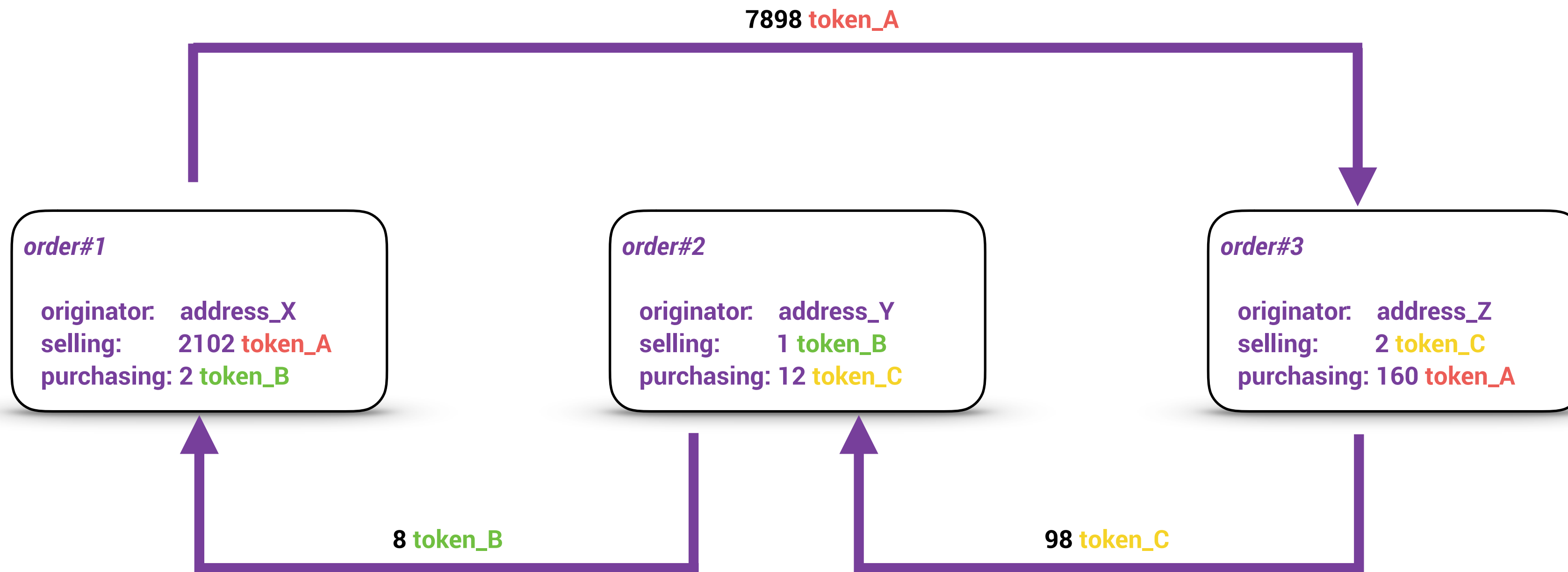
originator: address\_Y  
selling: 9 token\_B  
purchasing: 110 token\_C

*order#3*

originator: address\_Z  
selling: 100 token\_C  
purchasing: 8000 token\_A

## Order-Ring Example





## Order-Ring Example

Loopring

**Problems**

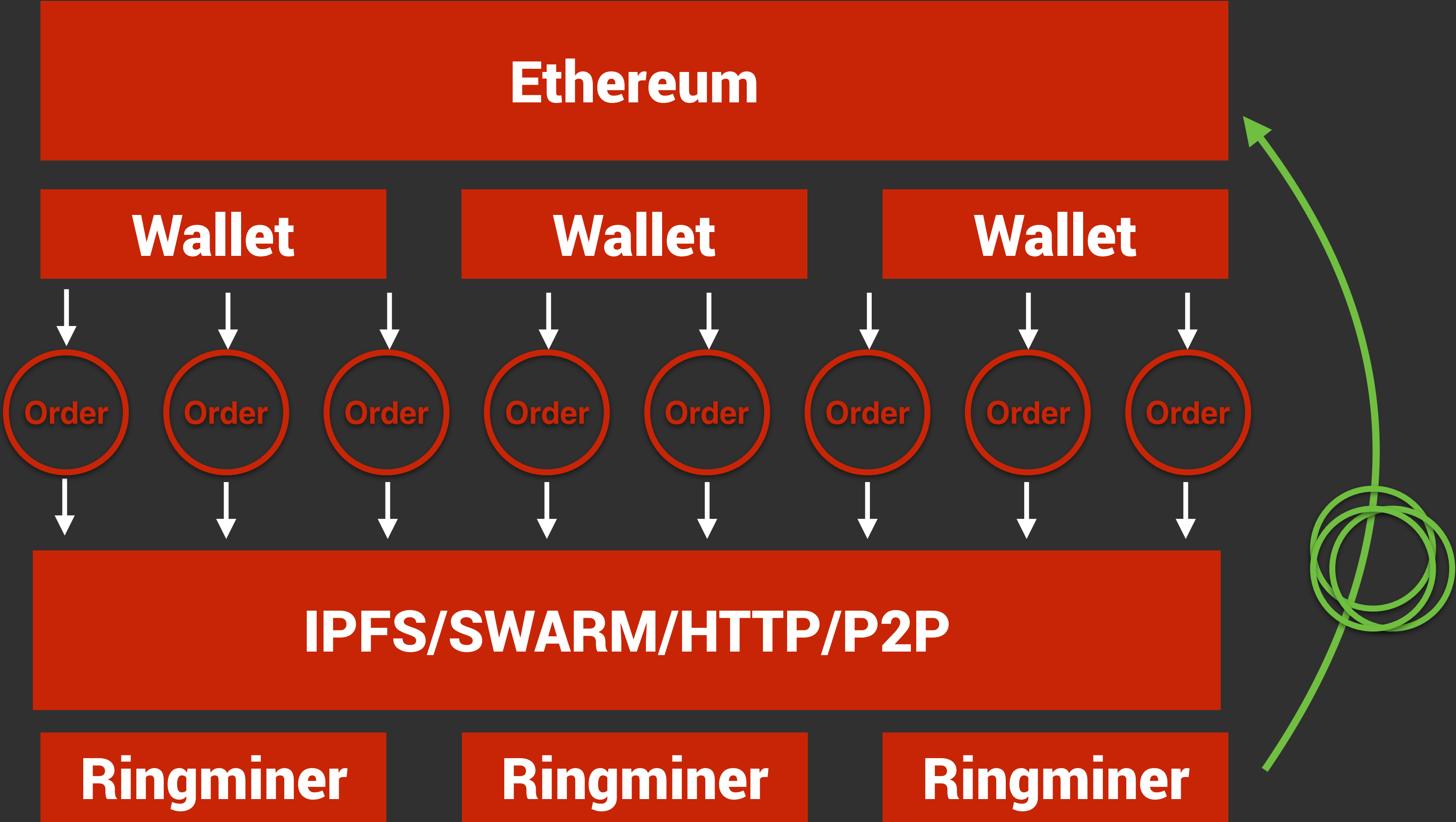


**Solutions**

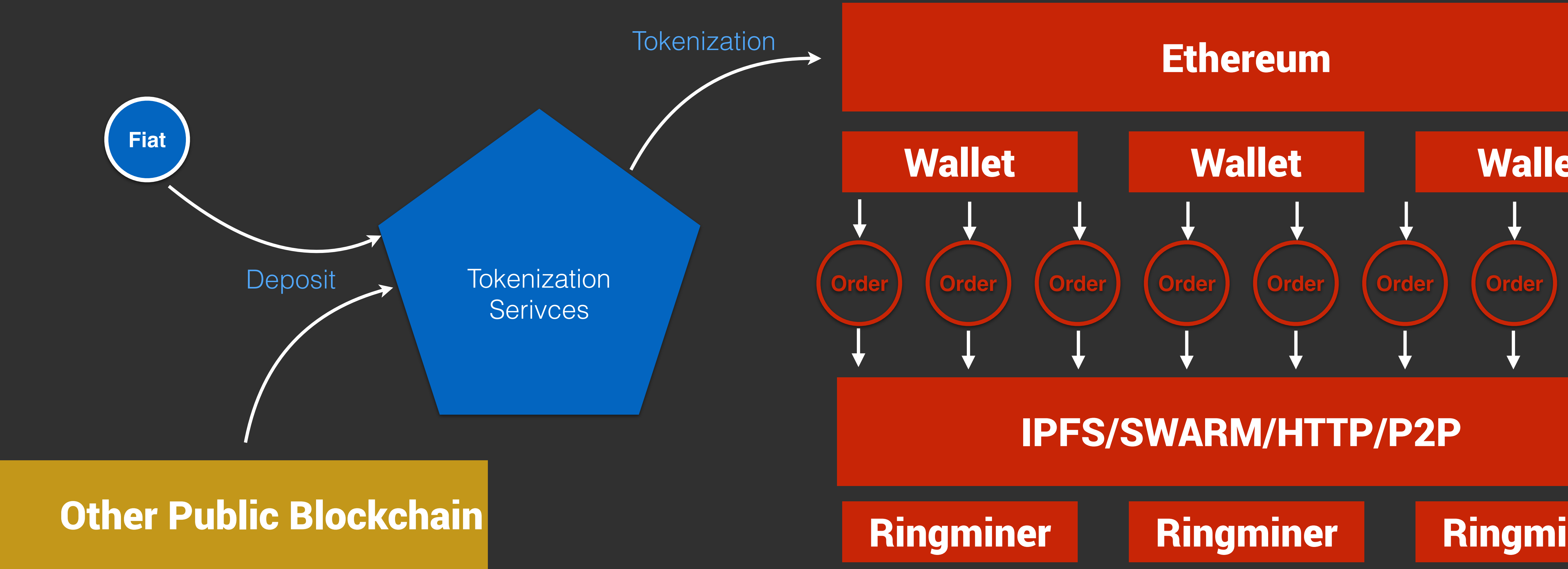


**Ecosystem**

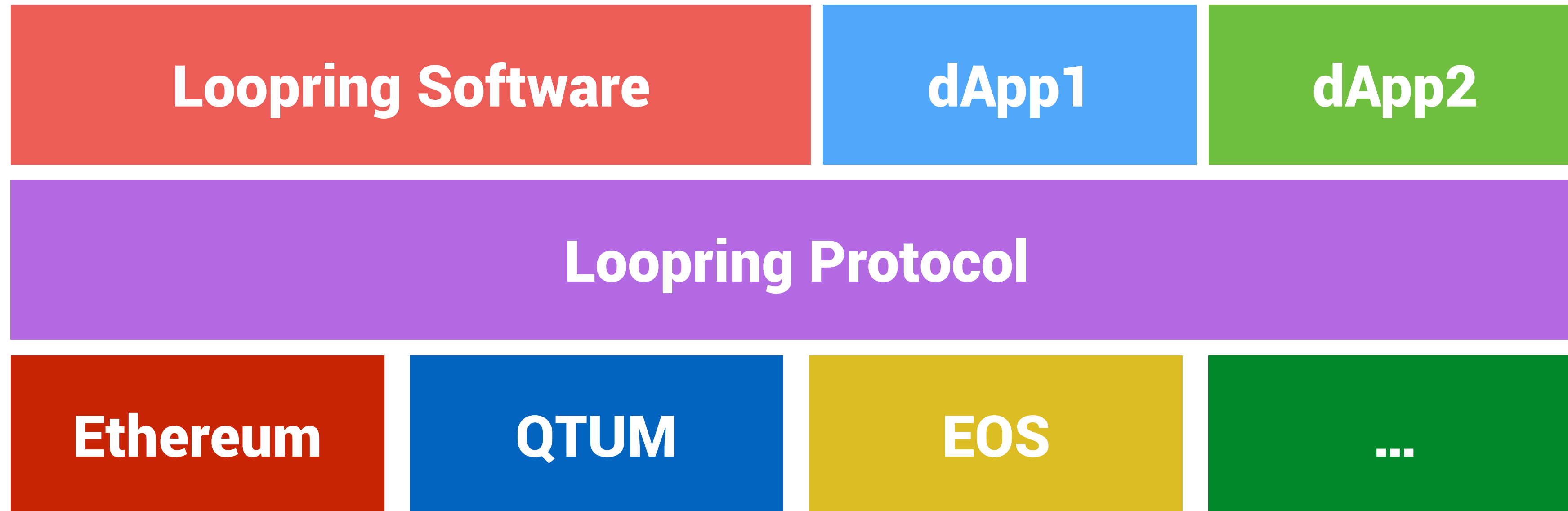
Loopring Ecosystem



# Loopring Ecosystem



# Loopring **Ecosystem**



Loopring can be deployed to blockchains that support smart-contract and ERC20 standard

# Loopring **Ecosystem**



# Loopring

**Decentralized** anonymous and secure

**Offchain orders/onchain settlement** boosted performance

**Ring-mining** higher liquidity

**Order Sharing** smaller spread with high liquidity

**Multi-chains** Applicable to multiple blockchains





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[daniel@loopring.org](mailto:daniel@loopring.org)