

# **Know-Your-Transactions: Crypto Compliance and Transaction Monitoring**

Security Solution in the age of Blockchain and AI.

# Tornado Cash

*“Tornado Cash has repeatedly failed to impose effective controls designed to stop it from laundering funds for malicious cyber actors on a regular basis and without basic measures to address its risks. Treasury will continue to aggressively pursue actions against mixers that launder virtual currency for criminals and those who assist them.”*

- Secretary of the Treasury for Terrorism and Financial Intelligence Brian E. Nelson

## PRESS RELEASES

### U.S. Treasury Sanctions Notorious Virtual Currency Mixer Tornado Cash



August 8, 2022

WASHINGTON – Today, the U.S. Department of the Treasury’s Office of Foreign Assets Control (OFAC) sanctioned virtual currency mixer Tornado Cash, which has been used to launder more than \$7 billion worth of virtual currency since its creation in 2019. This includes over \$455 million stolen by the Lazarus Group, a Democratic People’s Republic of Korea (DPRK) state-sponsored hacking group that was [sanctioned by the U.S. in 2019](#), in the [largest known virtual currency heist to date](#). Tornado Cash was subsequently use

# The Collapse of FTX

Cryptocurrency exchange FTX and its founder and former CEO, Sam Bankman-Fried, are intricately entwined. The swift and damaging collapse of FTX in late 2022 will have repercussions on the international crypto community for years to come.

## The fall of the FTX 'King of Crypto' Sam Bankman-Fried

© 13 December 2022



# Crypto Scandals and Controversial Stories

The crypto market behaves erratically in 2022 and was marred by corruption and fraudulent activity - Chayanika Deka

Cryptocurrency-based crime hit a new all-time high in 2021, with illicit addresses receiving \$14 billion over the course of the year, up from \$7.8 billion in 2020. - CHAINALYSIS TEAM

## Collapsed Australian crypto exchange Digital Surge owed \$33m by FTX

More than half of Brisbane company's digital assets were deposited with Sam Bankman-Fried's exchange

### Business

## Three Arrows Capital Liquidators Seize \$35.6 Singaporean Banks

In a court hearing Friday, 3AC's appointed liquidators blasted the collapsed founders for talking to the media while repeatedly failing to cooperate with the probe.

By Cheyenne Ligon | Dec 3, 2022 at 5:37 a.m. | Updated Dec 3, 2022 at 6:44 a.m.

## Crypto Crime Trends for 2022: Illicit Transaction Activity Reaches All-Time High in Value, All-time Low in Share of All Cryptocurrency Activity

Cryptocurrency-based crime hit a new all-time high in 2021 with illicit addresses receiving \$14 billion in 2021, up from \$7.8 billion in 2020.

TECH

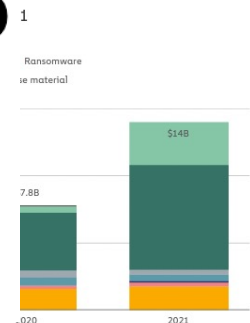
## Crypto criminals laundered \$540 million by using a service called RenBridge, new report shows

PUBLISHED WED, AUG 10 2022 8:00 AM EDT | UPDATED WED, AUG 10 2022 11:04 AM EDT



MacKenzie Sigalos @KENZIESIGALOS

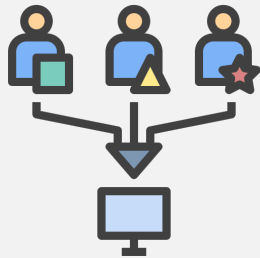
SHARE [f](#) [t](#) [in](#) [✉](#)



Note: "Cybercriminal administrator" refers to addresses that have been attributed to individuals connected to a cybercriminal organization, such as a darknet market.

# KYC (Know-Your-Customer)

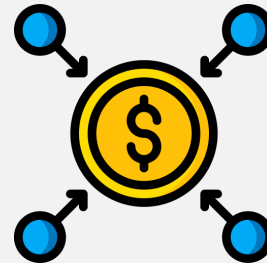
KYC is designed to protect financial institutions against fraud, corruption, money laundering and terrorist financing.



Establish  
customer identity



Understand the  
nature of customers'  
activities



Qualify that the  
source of funds is  
legitimate



Assess money  
laundering risks  
associated with  
customers

# KYT (Know-Your-Transaction)

KYT (Know-Your-Transaction) refers to **examining both fiat and crypto transactions**. It gives institutions the aptitude to break down and structure crypto transactions

KYT is essential to determine money laundering, fraudulent activities, or suspicious behaviours, sometimes as serious as a mass proliferation of weapons or drug trafficking.

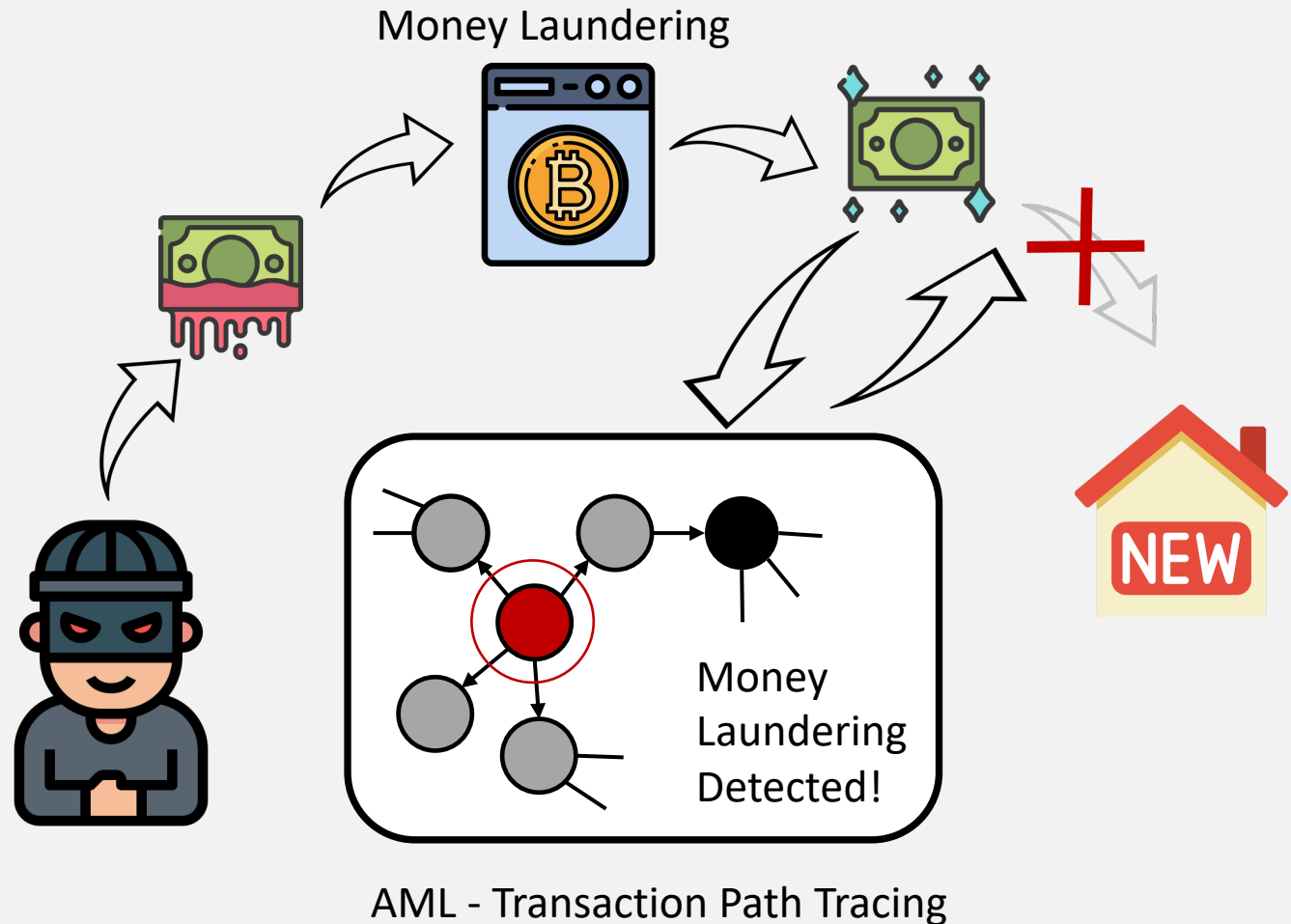


# KYC vs KYT - Why KYC alone is not enough

KYC	KYT
A static assessment of the client, require information provided by the client	Client activities are <b><u>monitored in real-time</u></b> without creating extra hassle for the clients. Clients are only approached when a transaction hits a red flag
Heavily rely on publicly available data of the client, and information provided by the client	Brings <b><u>data-driven conclusions</u></b> by examining transactions in real time

# AML (anti-money laundering)

Cryptocurrency anti-money laundering (AML) encompasses the laws, regulations, and practices designed to stop criminals from converting illegally obtained cryptocurrencies into fiat currencies.





# AML Red Flags

**Financial Action Task Force (FATF)** has conducted research into the characteristics of cryptocurrency money laundering. The research drew from previous FATF investigations into crimes involving virtual assets and from over 100 case studies contributed by jurisdictions across the FATF Global Network since 2017.

## Transaction Type

- Making a series of high-value cryptocurrency transactions in a short period of time
- Structuring cryptocurrency transactions in small amounts to avoid reporting thresholds.
- ...

## Transaction Pattern

- Transactions involving multiple cryptocurrencies or multiple accounts with no logical business explanation.
- Frequent transfers of large amounts of crypto within a set period of time (day, week, month) to the same account from more than one person.
- ...

## Anonymity

- Transactions involving more than one type of cryptocurrency, or cryptocurrencies offering high levels of anonymity.
- Move funds from a transparent public blockchain to a centralized cryptocurrency exchange, and then immediately trading those funds for an AEC or privacy coin.
- ...

# AML Red Flags

## Senders and Recipients

- Users that create multiple accounts under different names to circumvent the exchange's trading and withdrawal limits, or that attempt to open accounts frequently using the same IP address.
- Transactions that originate from untrustworthy or suspicious IP addresses or high-risk jurisdictions.
- ...

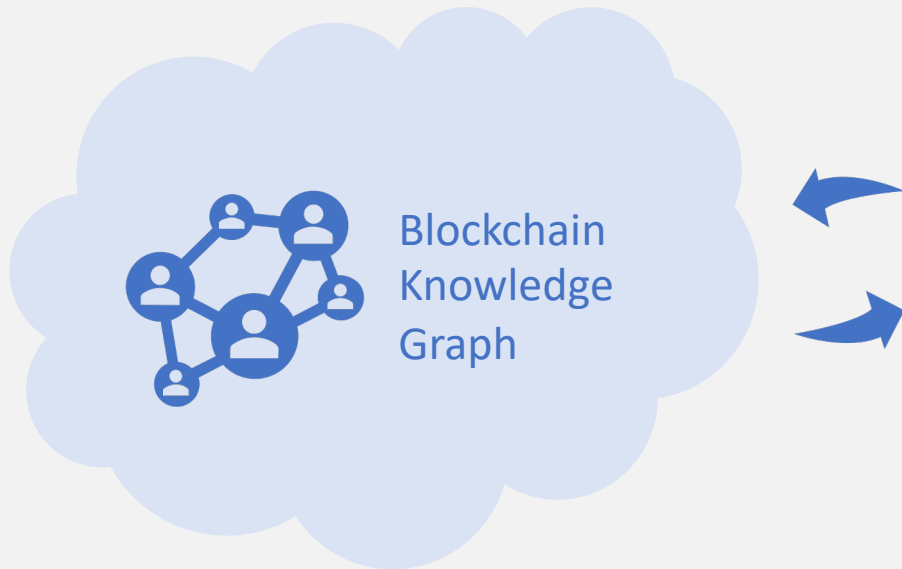
## Source of Funds

- Transactions involving cryptocurrency accounts with known links to illegal activities, such as fraud, extortion, ransomware or darknet marketplaces, or transactions to or from online gambling sites.
- A single cryptocurrency wallet linked to multiple credit or debit cards that are used to withdraw large amounts of fiat currency.
- ...

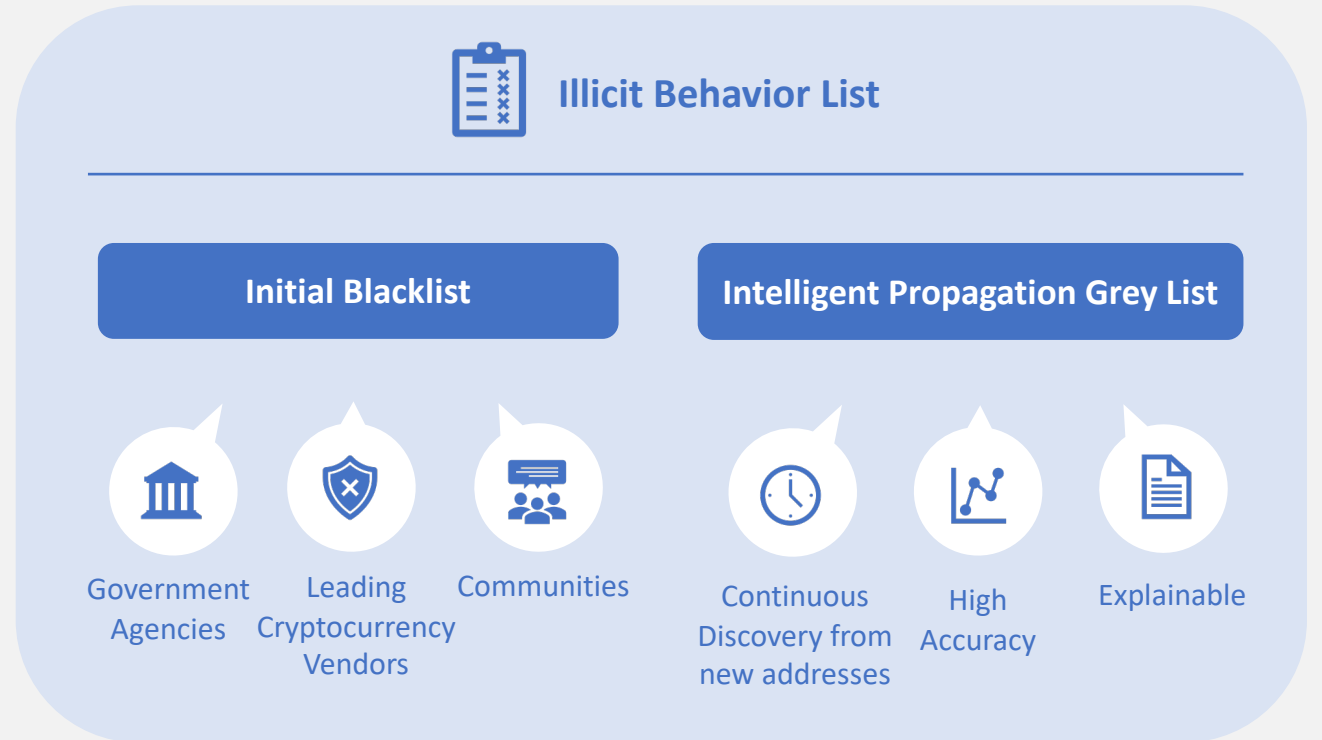
## Geographical Risks

- Cryptocurrency funds that originate in or are being sent to an exchange that is registered in a different country than the customer or the exchange.
- Customers using cryptocurrency exchanges or service providers located in high-risk jurisdictions or that are known to have inadequate AML/CFT measures.
- ...

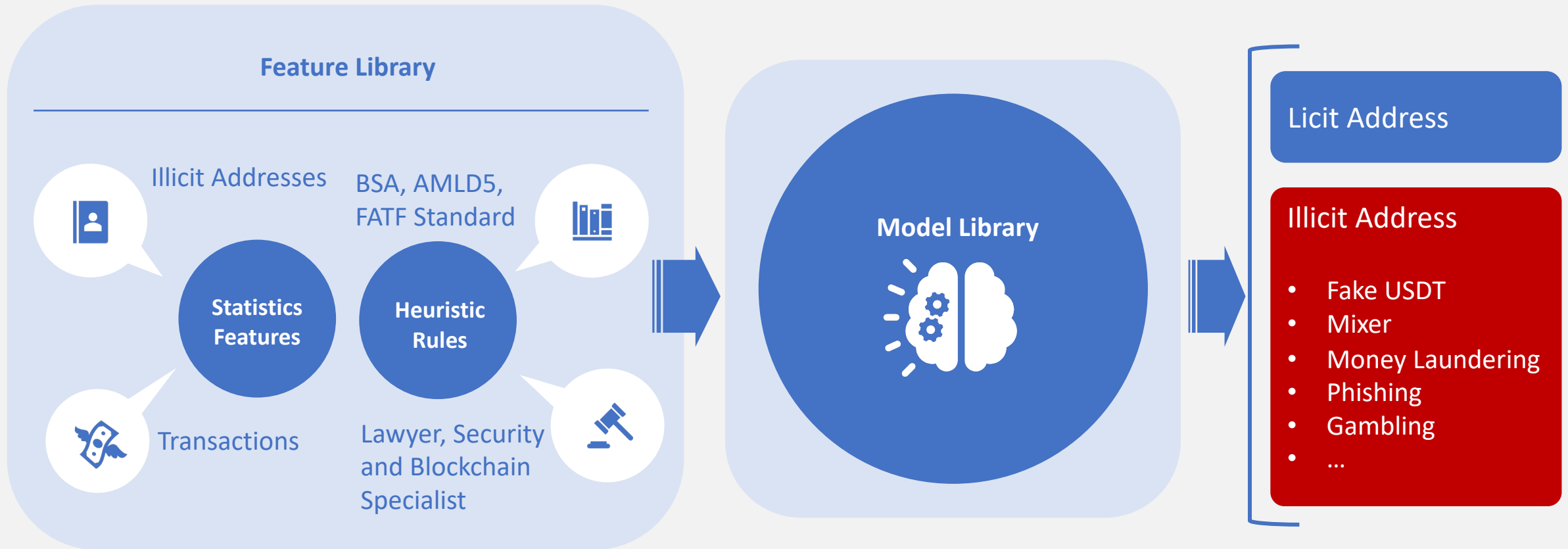
# AML (Data Hub)



Collect block transaction data of the whole network and store it in graph database



# AML (Intelligent AML Engine)





# AML Services

## **AML Risk Report**

Downloadable, detailed PDFs for suspicious activity reports

## **Illicit Path Tracing**

Automated generation of transaction paths that show connections between investigated addresses & risks

## **Real-time Tracing**

Get suspicious activity alerts before users' intended transaction

## **Case Investigation**

Cases manually reviewed and investigated by experts

# AML (Risk Score)



Ethereum



0xbad41e5412ebaf22b8ec127521060fd9fa29bbdd

TRACK NOW



## Address Details

**Address:** 0xbad41e5412ebaf22b8ec127521060fd9fa29bbdd

**Balance:** 0.00904692 ETH

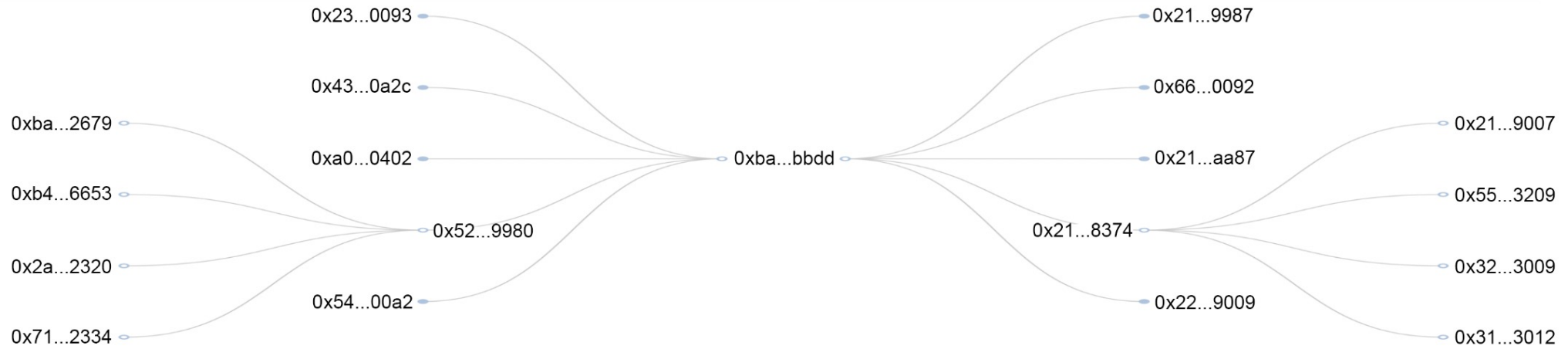
**Total Transaction Amount:** 87.80823256 ETH

**Inbound Transactions:** 43.92813517 ETH

**Outbound Transactions:** 43.880038 ETH

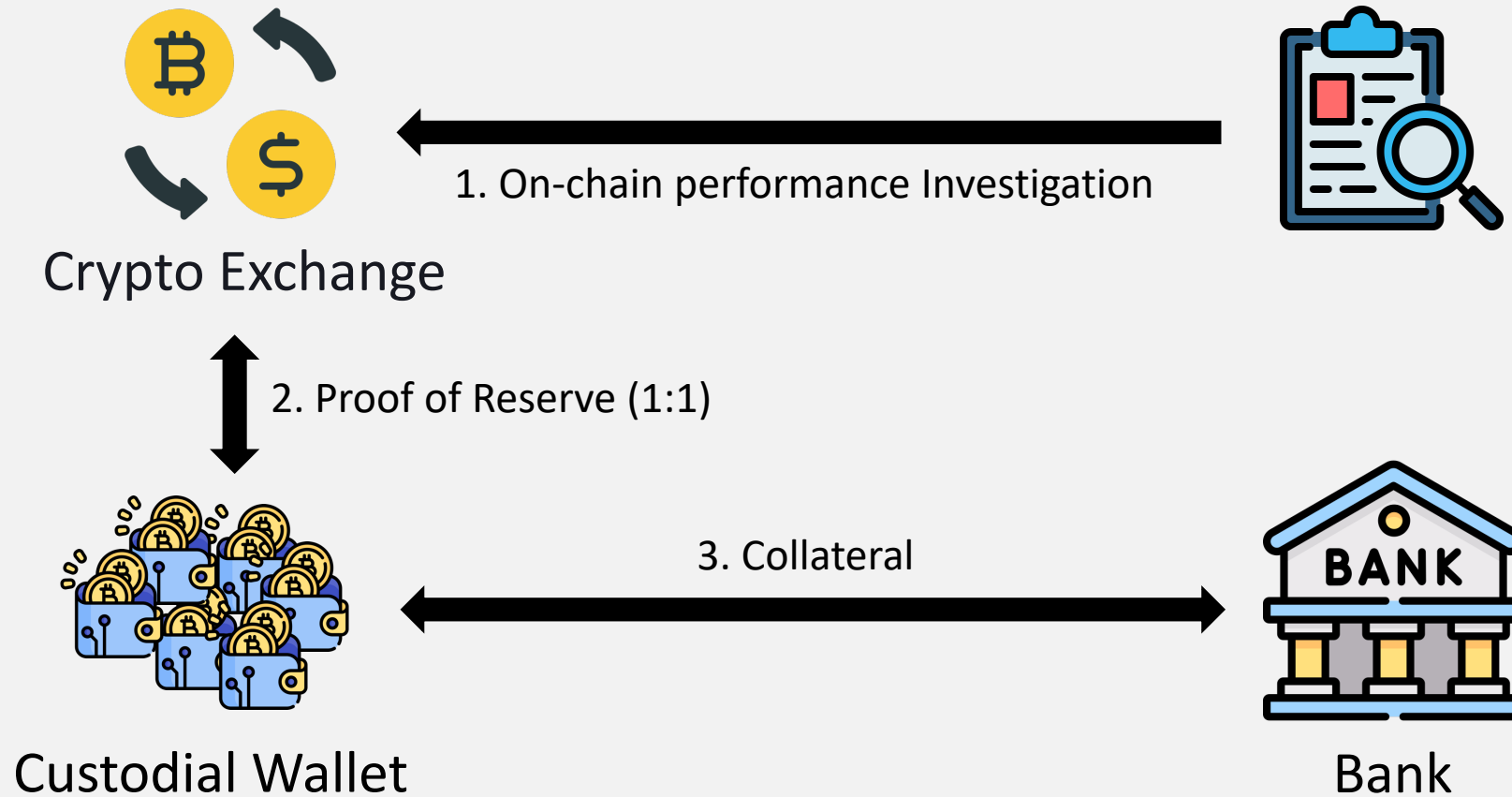
**Number of Transactions:** 987

# AML (Transaction Map)



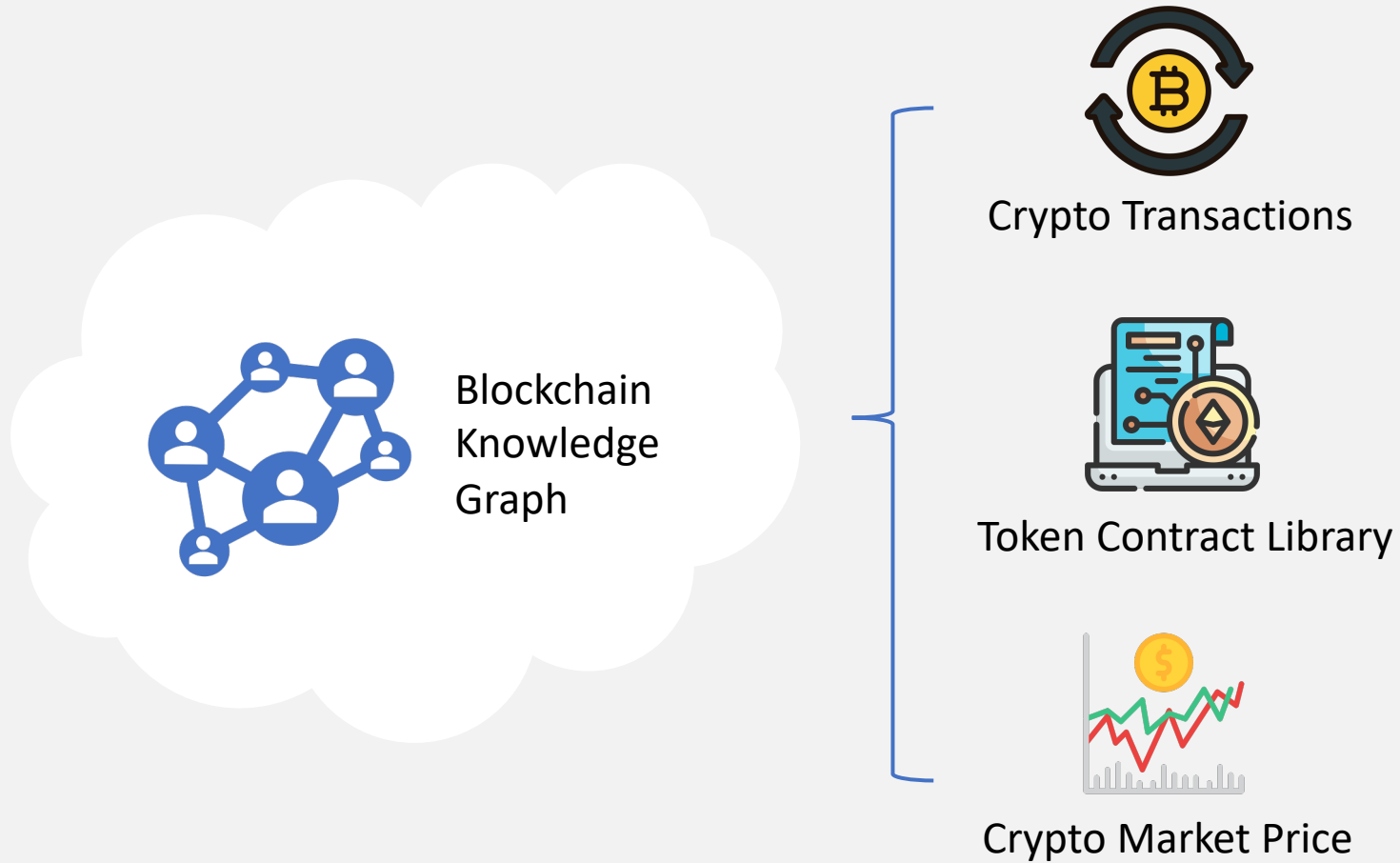
Time	To Address	Transaction Fee	Amount
Jan-04-2023 03:43:47 AM	<code>Ox66E6584B497931281440c1f6CEa3549c26946736</code>	0.000323480358705 ETH	0.000491332146463 ETH
Jan-04-2023 05:32:03 AM	<code>Ox690B9A9E9aa1C9dB991C7721a92d351Db4FaC990</code>	0.00052342205 ETH	0.00533213212578 ETH
Jan-04-2023 06:30:42 AM	<code>OxCa012571199BaccAF626D885AB3B5e119706f6D1</code>	0.0992053213232 ETH	1.2255435433872 ETH
Jan-04-2023 07:20:44 AM	<code>Ox4B9eOd224DABCC96191cacE2D367A8d8B75C9C81</code>	0.002627880537707188 ETH	0.027843654765765732 ETH
Jan-04-2023 09:43:50 AM	<code>OxDaFEA492D9c6733ae3d56b7Ed1ADB60692c98Bc5</code>	0.005657567456454434 ETH	0.011190599790755088 ETH

# Exchange Screening

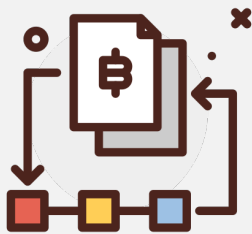




# Exchange Screening (Data Hub)

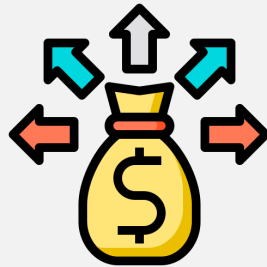


# Exchange Screening



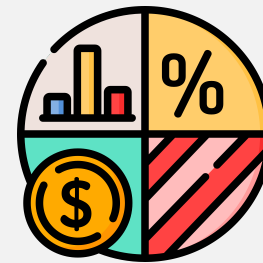
## On-Chain Data Analytics

Monitor and display on-chain activity and performance over time.



## Liquidity Monitoring

Track liquidity health to detect suspicious activity or sudden changes.



## Token Distribution Analysis

Identify token distribution and new user growth over time.



## Crypto VS Fiat

Provide on-chain asset and fiat currency point-in-time statistics

# Exchange Screening (Risk Score)

0x3f5ce5fbfe3e9af3971dd833d26ba9b5c936f0be  
0x85b931a32a0725be14285b66f1a22178c672d69b  
0x708396f17127c42383e3b9014072679b2f60b82f  
0xe0f0cfde7ee664943906f177f14342e76a5cec7  
0x8f22f2063d253846b53609231ed80fa571bc0c8f  
0x28c6c06298d514db089934071355e5743bf21d60  
0x21a31ee1afc51d94c2efccaa2092ad1028285549  
0xdfd5293d8e347dfe59e90efd55b2956a1343963d  
0x56eddb7aa87536c09ccc2793473599fd21a8b17f  
...

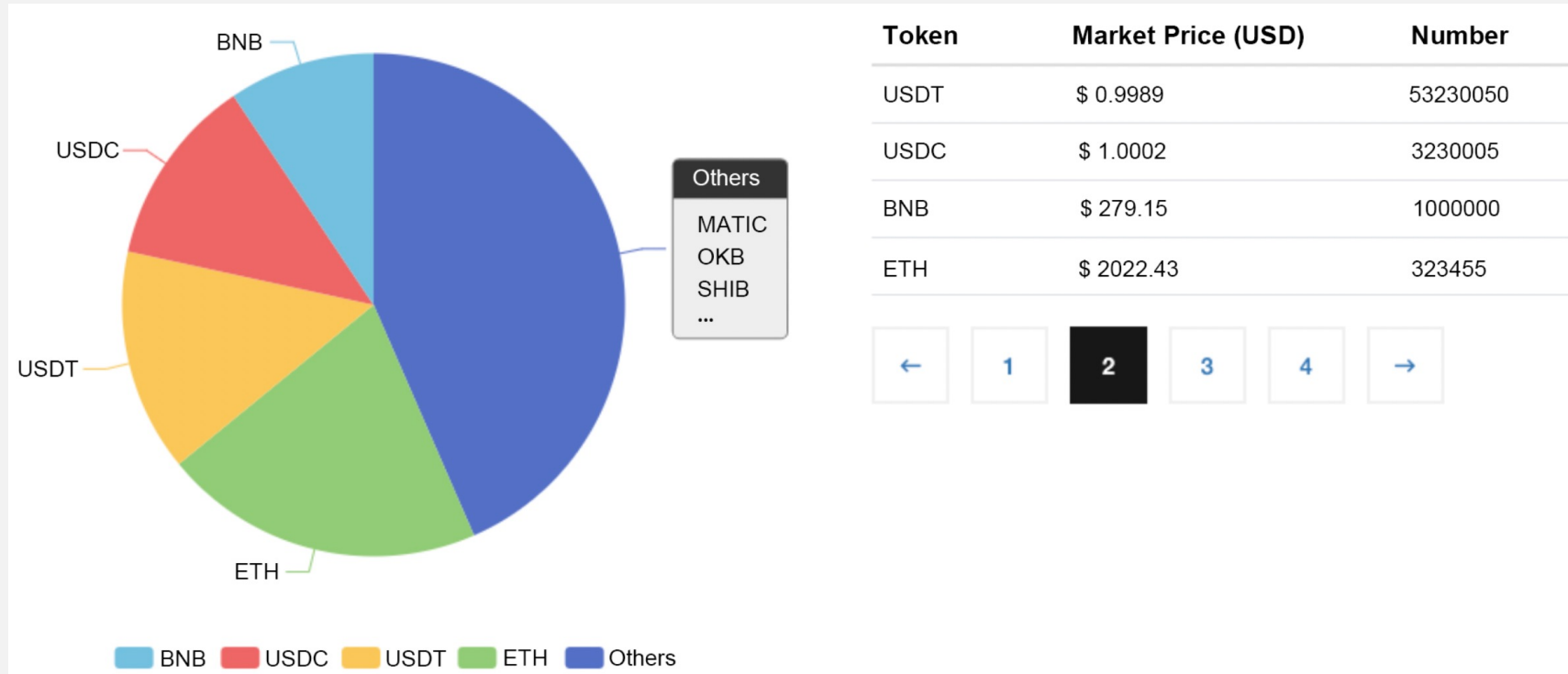
ANALYZE →



Total Assets:	\$ \$50,624,324,849.35
Trading Volumn (24h):	\$ 15,532,418,340
Avg. Liquidity:	933
# Coins:	383

# Exchange Screening (Report)

## Token Allocation



# Exchange Screening (Report)

## Volume graph of an exchange (30d)



## Proof of Reserve and Collateral Rate (30d)



# Supported Chains and Tokens

Our product supports the main chain and its contract coins such as BTC, ETH, BSC, TRX, APT, and other ERC20, TRC20 format tokens.



# Our Product

1K+

Address Entity

170M+

Address Label

65M+

Risky Address

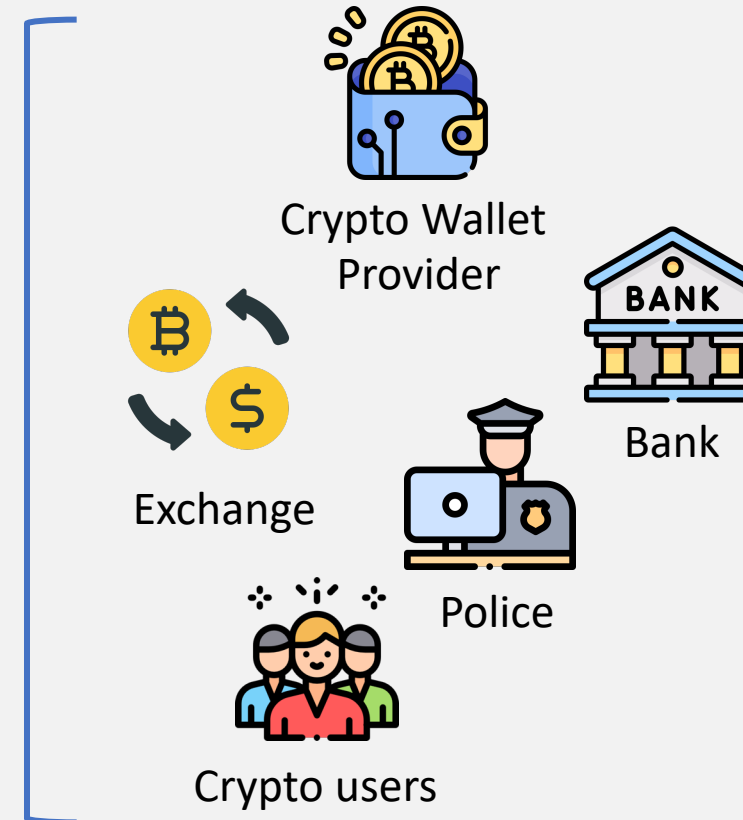
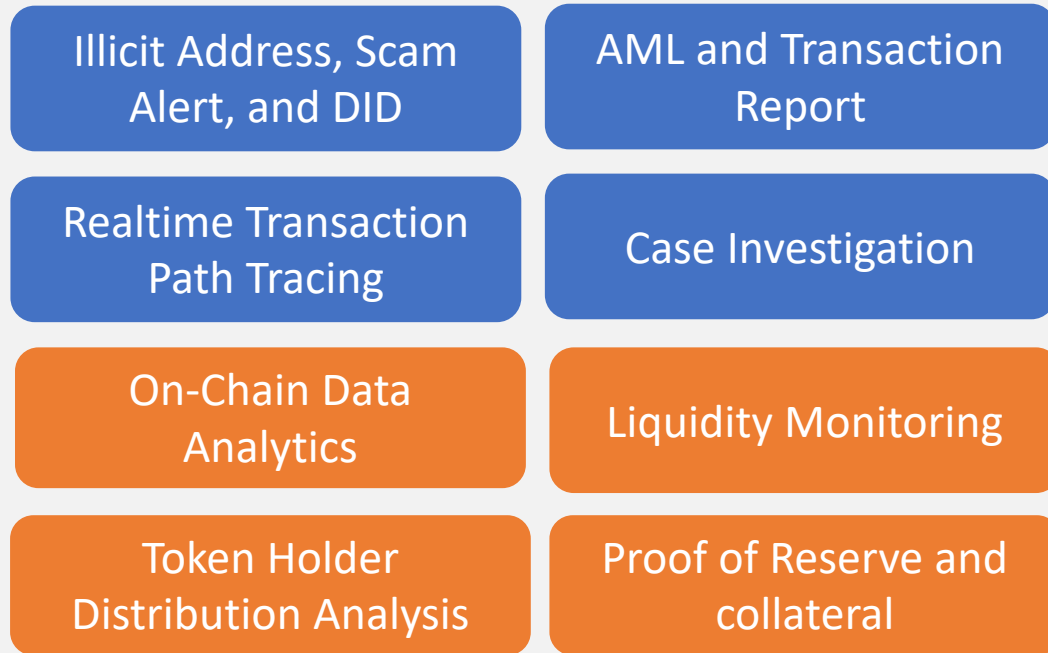
200+

Algorithms and Risk  
Analysis Scenarios

100ms

Response Time

# Vision - Making a better web3 world together





# Roadmap

