



coinfirm



Coinfirm Atomic Oracle Integration Guide

May 2022

©2022 All contents of this document are covered by copyright.
This document was prepared by Coinfirm Limited, registered at 16 Great Chapel Street, London, England,
W1F 8FL, and cannot be used or reproduced in whole and parts without prior written confirmation.

www.coinfirm.com

Introduction

The document is created to help users integrate Solidity based Smart Contract with AtomicOracle.

ETHAtomicOracle smart contract quick usage guide

Etherscan

One can use *Etherscan* to communicate with **ETHAtomicOracle** smart contract.

<https://etherscan.io/address/0x1e3f5122c7ff88471baa4ea5e08d6370d324d26c#readContract>

<https://etherscan.io/address/0x1e3f5122c7ff88471baa4ea5e08d6370d324d26c#writeContract>

To make a `writeContract` call one must connect the wallet (e.g. *Metamask*) using `Connect to Web3` button on the smart contract etherscan page (section *Contract* → *Write Contract*).

RemixIDE

One can use <http://remix.ethereum.org/> to compile **IETHAtomicOracle** (code in the paragraph below) and interact it with a smart contract instance on *Ethereum Mainnet* or *Ethereum Ropsten Testnet*.

IETHAtomicOracle interface

Interface of **ETHAtomicOracle**.

Whole deployed code needed to compile and build can be found on **ETHAtomicOracle Etherscan** page, section *Code*

<https://etherscan.io/address/0x1e3f5122c7ff88471baa4ea5e08d6370d324d26c#code>

```
interface IETHAtomicOracle is IBaseAtomicOracle {
    /**
     * @dev Setting a fee for a specific Client Smart Contract.
     *
     * @param addr Address of the Client Smart Contract
     * @param fee Fee for this specific smart contract, use 0 to use the
     * default fee
     */
    function setFee(address addr, uint256 fee) external;

    /**
     * @dev Setting the default fee for queries.
     */
}
```

```

    * @param defaultFee_ New default fee for Client Smart Contracts without
    * their own personal fee in wei
    */
function setDefaultFee(uint256 defaultFee_) external;

/**
 * @dev Withdraw fees from this contract to the calling account
 *
 * Withdraw all the paid fees.
 */
function withdrawFees() external;

/**
 * @dev Status getter, see {BaseAtomicOracle-_getStatus}. Accepts ether.
 */
function getStatusForETH(string calldata target) external payable returns (bytes32 status);

/**
 * @dev Get the current fee for a specific Client Smart Contract.
 *
 * Use this to determine what your contract would pay.
 *
 * @param addr The Client Smart Contract whose fee would like to have
 * @return fee Current fee at the moment for `addr` in wei
 */
function getFee(address addr) external view returns (uint256 fee);

/**
 * @dev Emitted when a new fee for an address is set.
 *
 * @param addr Ethereum account address whose fee was set
 * @param fee The current fee in wei
 */
event FeeSet(address addr, uint256 fee);

/**
 * @dev Emitted when an authorized user withdraws paid fees from this
 * contract.
 *
 * @param destination Ethereum account address where the fees were
 * withdrawn to
 * @param amount Amount of fees withdrawn in wei
 */
event FeesWithdrawn(address destination, uint256 amount);

/**
 * @dev Emitted when default fee for account without a personal fee is set
 *
 * @param fee Current fee in wei for accounts without a personal fee
 */
event DefaultFeeSet(uint256 fee);
}

```

Usage scenarios

Client's Smart Contract using this Oracle should always query the current fee via `ETHAtomicOracle.getFee`, so the Client Smart Contract would be ready for sudden price changes by the admin of this contract.

Getting the default fee is not needed, `ETHAtomicOracle.getFee` should be used instead.

Sample integration

The smart contract below is an example to demonstrate communication between Oracle and the Client.

In this sample, the client relies only on validating a single flag - `StatusLibrary.SANCTIONED_FLAG`

```
// SPDX-License-Identifier: UNLICENSED
pragma solidity ^0.7.4; // See "Solidity version" of README.md

import "https://github.com/OpenZeppelin/openzeppelin-contracts/blob/v3.4.0/contracts/utils/Address.sol";
import "https://github.com/OpenZeppelin/openzeppelin-contracts/blob/v3.4.0/contracts/math/SafeMath.sol";
import "./IETHAtomicOracle.sol";
import "./AddressLibrary.sol";
import "./StatusLibrary.sol";

/**
 * @title An Example Client Smart Contract: a simple vault
 * @author Ville Sundell <development@solarius.fi>
 * @dev This is an example implementation of a client smart contract.
 *
 * This is just to demonstrate Oracle <-> Client communication.
 * The business logic presented here is not viable.
 *
 * THIS IS SIMPLIFIED INTENTIONALLY, AND NOT USABLE IN PRODUCTION AS-IS!
 */

contract ExampleVault {
    using Address for address payable;
    using SafeMath for uint256; // Applicable only for uint256
    // These are Atomic Oracle specific, copy these to your implementation:
    using AddressLibrary for address;
    using StatusLibrary for bytes32;

    IETHAtomicOracle private _oracle;

    mapping(address => uint256) private _balances;
```

```
constructor(IETHAtomicOracle oracle_) {
    _oracle = oracle_;
}

receive() external payable {
    _balances[msg.sender] = _balances[msg.sender].add(msg.value);
    _verifyUser(msg.sender);
}

function withdraw() external {
    uint256 balance = _balances[msg.sender];
    _balances[msg.sender] = 0;
    _verifyUser(msg.sender);
    msg.sender.sendValue(balance);
}

function _verifyUser(address user) internal {
    string memory target = user.toString();
    uint256 fee = _oracle.getFee(address(this));
    bytes32 result = _oracle.getStatusForETH({value: fee})(target);

    require(!result.isFlag(StatusLibrary.sanctioned_country), "ExampleVault: User is flagged
as sanctioned");
}
}
```

Deployed AtomicOracle

ETHAtomicOracle deployed smart contracts can be found at the following addresses.

Variant	Address
Ethereum Mainnet	0x1E3F5122C7ff88471baa4Ea5E08D6370D324D26c https://etherscan.io/address/0x1e3f5122c7ff88471baa4ea5e08d6370d324d26c
Ethereum Ropsten Testnet	0xA5DE002b2F635c3D757E8FdBb5c39cBA21f2d236 https://ropsten.etherscan.io/address/0xa5de002b2f635c3d757e8fdbb5c39cba21f2d236
RSK Mainnet	0x2431a94e685d1f214e8ccfd6909d52ec618f7b1e https://explorer.rsk.co/address/0x2431a94e685d1f214e8ccfd6909d52ec618f7b1e
RSK Testnet	0xC2eBb4e0F43096e8681f8bFEAf03916bF7CA79A8 https://explorer.testnet.rsk.co/address/0xc2ebb4e0f43096e8681f8bfeaf03916bf7ca79a8

Appendix

RSK Mainnet sample addresses

Clean addresses:

- call AtomicOracle for
2431A94E685D1F214E8CCFD6909D52EC618F7B1E
(uppercase variant)
- <https://explorer.rsk.co/address/0x2431a94e685d1f214e8ccfd6909d52ec618f7b1e>

Sanctioned addresses:

- call AtomicOracle for
CFAEC8361541EDE1AC3847566B0B13A96CB9E39C
(uppercase variant)
- <https://explorer.rsk.co/address/0xcfaec8361541ede1ac3847566b0b13a96cb9e39c>

Flags

List of flags stored in AtomicOracle for each address.

The number represents bit number related to the given flag. Bit set to 1 means that the flag is active.

Code below can be used to check flag value

```
/**
 * @dev Check if a certain flag of the returned status is set.
 *
 * @param status The returned status from an Oracle Smart Contract
 * @param flag Flag number to check, 0-255
 * @return isSet Returns `true` if the flag in question is set, `false`
 * otherwise
 */
function isFlag(bytes32 status, uint8 flag) internal pure returns (bool isSet) {
    return (status & bytes32(2**flag)) > 0;
}
```

The full list of the risk indicators – flags

The flags can be defined in smart contract code as samples below and used with function `isFlag(bytes32 status, uint8 flag)` defined above.

uint8 internal constant sanctioned_country =16 Address contains the name of sanctioned country

uint8 internal constant name_illicit_activity =17 Address contains the name of an illicit activity

Bit; flag; description

16; sanctioned_country; Address contains the name of sanctioned country

17; name_illicit_activity; Address contains the name of an illicit activity

18; hacked_funds_layering; Address being a part of funds layering/mixing scheme related to hacked or misappropriated address

19; ico_owner; Address belongs to an Initial Coin Offerings issuer

20; quickly_released_incomes; Address with at least one transaction of quickly released incomes

21; deep_market; Address directly related to darknet market

22; drug_rlttd; Address directly related to drugs trade

23; exchange; Address belongs to cryptocurrencies exchange

24; gambling; Address belongs to gambling service

25; local_exchange; Address belongs to over-the-counter exchange

26; marketplace;

27; mining_pool;

28; mixer; Address belongs to mixer or tumbler

29; no_kyc; Address belongs to obliged service with no KYC process

30; online_wallet;

31; lending_service; Address belongs to lending service

- 32; remittance_company; Address belongs to remittance service
- 33; scam_service; Address directly related to scam or investment fraud
- 34; tip_service; Address belongs to tipping service
- 35; fiat_currency; Address belongs to entity that allows fiat deposits and withdrawals
- 36; usd_incoming_below_value; Address with significant part of single incoming transactions just below 10k USD
- 37; anonymous_coin; Address belongs to entity that allows anonymous coins trading
- 38; usd_outgoing_below_value; Address with significant part of single outgoing transactions just below 10k USD
- 39; new_address_incoming_value1; Address with significant part of incoming transactions executed from new addresses
- 40; new_address_outgoing_value1; Address with significant part of outgoing transactions executed to new addresses
- 41; drug_trade_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to drugs trade
- 42; drug_trade_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to drugs trade
- 43; drug_trade_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses related to drugs trade
- 44; drug_trade_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses related to drugs trade
- 45; deep_web_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses found on deep web
- 46; deep_web_incoming_value2; Address with part of incoming transactions in close proximity to addresses found on deep web
- 47; deep_web_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses found on deep web
- 48; deep_web_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses found on deep web
- 49; deep_web; Address found on deep web
- 50; terrorist_financing; Address directly related to terrorism financing
- 51; weapon_trade; Address directly related to weapon trade or weapon trafficking
- 52; crime_against_person; Address directly related to crime against the person
- 53; ransomware; Address belongs to ransomware
- 54; ransom; Address directly related to ransom payment (other than ransomware)
- 55; hacker; Address belongs to hacker
- 56; hacked; Address which was hacked or misappropriated
- 57; tax_evasion; Address directly related to tax evasion
- 58; high_risk_connected_parties; Address posses high risk connected parties
- 59; terrorist_financing_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to terrorism financing
- 60; terrorist_financing_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to terrorism financing
- 61; terrorist_financing_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses related to terrorism financing
- 62; terrorist_financing_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses related to terrorism financing
- 63; weapon_trade_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to weapon trade or weapon trafficking
- 64; weapon_trade_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to weapon trade or weapon trafficking
- 65; weapon_trade_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses related to weapon trade or weapon trafficking

- 66; weapon_trade_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses related to weapon trade or weapon trafficking
- 67; crime_against_person_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to crime against the person
- 68; crime_against_person_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to crime against the person
- 69; crime_against_person_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses related to crime against the person
- 70; crime_against_person_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses related to crime against the person
- 71; ransomware_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to ransomware
- 72; ransomware_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to ransomware
- 73; ransom_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to ransom payment (other than ransomware)
- 74; ransom_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to ransom payment (other than ransomware)
- 75; hacker_incoming_value1; Address with significant part of incoming transactions in close proximity to hacker's addresses
- 76; hacker_incoming_value2; Address with part of incoming transactions in close proximity to hacker's addresses
- 77; hacked_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses which were hacked or misappropriated
- 78; hacked_incoming_value2; Address with part of incoming transactions in close proximity to addresses which were hacked or misappropriated
- 79; scam_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to scam or investment frauds
- 80; scam_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to scam or investment frauds
- 81; tax_evasion_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to tax evasion
- 82; tax_evasion_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to tax evasion
- 83; significant_fee_miner_incoming_value; Address with significant part of incoming transactions passing significant fees to miners
- 84; significant_fee_miner_outgoing; Address with at least one outgoing transaction passing significant fees to miners
- 85; significant_fee_miner_outgoing_value; Address with significant part of outgoing transactions passing significant fees to miners
- 86; transactions_value_peak_incoming; Address with value peaks of incoming transactions
- 87; transactions_value_peak_outgoing; Address with value peaks of outgoing transactions
- 88; transactions_tx_value_incoming_value2; Address with significant part of incoming transactions the value of which is significantly higher than network average
- 89; new_address_incoming_value2; Address with significant part of incoming transactions executed from new addresses
- 90; new_address_outgoing_value2; Address with significant part of outgoing transactions executed to new addresses
- 91; accumulating_funds; Address accumulating funds for a long period of time
- 92; single_incoming_outgoing; Address with single incoming - outgoing transaction
- 93; quickly_released_incomes_value1; Address with significant part of transactions constituting quickly released incomes
- 94; quickly_released_incomes_value2; Address with significant part of transactions constituting quickly released incomes

95; round_amount_incoming_value1; Address with significant part of incoming transactions executed in round digital currencies amounts

96; round_amount_incoming_value2; Address with significant part of incoming transactions executed in round digital currencies amounts

97; round_amount_outgoing_value1; Address with significant part of outgoing transactions executed in round digital currencies amounts

98; round_amount_outgoing_value2; Address with significant part of outgoing transactions executed in round digital currencies amounts

99; hot_wallet;

100; medium_risk_country; Address belongs to entity registered in a medium risk country

101; ico_token_address; Address releasing tokens during an Initial Coin Offering

102; sanctioned_country_sub; Address directly related to subject from a country subject to comprehensive sanctions

103; cloud_mining_pool; Address belongs to cloud mining pool

104; high_risk_country; Address belongs to entity registered in high risk country/prohibited country

105; terrorist_financing_layering; Address being a part of funds layering/mixing scheme related to terrorism financing

106; weapon_trade_layering; Address being a part of funds layering/mixing scheme related to weapon trade or weapon trafficking

107; crime_against_person_layering; Address being a part of funds layering/mixing scheme related to crime against the person

108; drug_layering; Address being a part of funds layering/mixing scheme related to drugs trade

109; deep_market_layering; Address being a part of funds layering/mixing scheme related to darknet markets

110; blackmail_layering; Address being a part of funds layering/mixing scheme related to blackmail

111; blackmail_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to blackmail

112; deep_market_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to darknet markets

113; card_skimming; Address directly related to credit card skimming or cloning

114; deep_market_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to darknet markets

115; scam_service_layering; Address being a part of funds layering/mixing scheme related to scam or investment frauds

116; piracy; Address directly related to intellectual property piracy

117; blackmail_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to blackmail

118; ponzi_service_layering; Address being a part of funds layering/mixing scheme related to Ponzi schemes

119; pump_dump_layering; Address being a part of funds layering/mixing scheme related to pump and dump fraud

120; pump_dump_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to pump and dump fraud

121; pump_dump_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to pump and dump fraud

122; piracy_layering; Address being a part of funds layering/mixing scheme related to intellectual property piracy

123; piracy_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to intellectual property piracy

124; piracy_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to intellectual property piracy

125; card_skimming_layering; Address being a part of funds layering/mixing scheme related to credit card skimming or cloning
126; card_skimming_value1; Address with significant part of incoming transactions in close proximity to addresses related to credit card skimming or cloning
127; card_skimming_value2; Address with part of incoming transactions in close proximity to addresses related to credit card skimming or cloning
128; tax_evasion_layering; Address being a part of funds layering/mixing scheme related to tax evasion
129; sanctioned_country_incoming_taint;
130; ransom_layering; Address being a part of funds layering/mixing scheme related to ransom payment (other than ransomware)
131; blackmail; Address directly related to blackmail
132; company;
133; individual_user;
134; merchant;
135; seized_by_authorities;
136; non_profit; Address belongs to nonprofit organization
137; foundation; Address belongs to foundation
138; charity; Address belongs to charity
139; government_political;
140; pump_dump; Address directly related to pump and dump fraud
141; non_blockchain_anonymity_service; Address belongs to anonymity service
142; gaming_service; Address belongs to gaming service
143; ponzi_service; Address belongs to Ponzi scheme
144; media;
145; community;
146; entertainment;
147; data_vendor;
148; it;
149; healthcare;
150; travel;
151; gift_cards;
152; online_forum;
153; digital_assets;
154; no_to_limited_kyc; Address belongs to obliged service which had no KYC and currently has limited KYC process
155; cryptocurrency_enterprise;
156; blockchain_exploring_service;
157; sanctioned_country_sub_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to subject from sanctioned country
158; limited_to_full_kyc; Address belongs to obliged service which had limited KYC and has implemented full KYC process
159; sanctioned_country_sub_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to subject from sanctioned country
160; no_to_full_kyc; Address belongs to obliged service which had no KYC and has implemented full KYC process
161; ponzi_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to Ponzi schemes
162; ponzi_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to Ponzi schemes
163; mixer_incoming_value1; Address with significant part of incoming transactions in close proximity to mixers or tumblers addresses
164; mixer_incoming_value2; Address with part of incoming transactions in close proximity to mixers or tumblers addresses

- 165; mixer_outgoing_value1; Address with significant part of outgoing transactions in close proximity to mixers or tumblers addresses
- 166; mixer_outgoing_value2; Address with part of outgoing transactions in close proximity to mixers or tumblers addresses
- 167; local_exchange_incoming_value1; Address with significant part of incoming transactions in close proximity to over-the-counter exchange
- 168; sanctioned_country_sub_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses related to subject from sanctioned country
- 169; local_exchange_incoming_value2; Address with part of incoming transactions in close proximity to over-the-counter exchange addresses
- 170; sanctioned_country_sub_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses related to subject from sanctioned country
- 171; local_exchange_outgoing_value1; Address with significant part of outgoing transactions in close proximity to over-the-counter exchange addresses
- 172; ico_payment_address; Address is Initial Coin Offering payment address
- 173; local_exchange_outgoing_value2; Address with part of outgoing transactions in close proximity to over-the-counter exchange addresses
- 174; no_kyc_incoming_value1; Address with significant part of incoming transactions in close proximity to obliged service with no KYC process
- 175; no_kyc_incoming_value2; Address with part of incoming transactions in close proximity to obliged service with no KYC process
- 176; no_kyc_outgoing_value1; Address with significant part of outgoing transactions in close proximity to obliged service with no KYC process
- 177; no_kyc_outgoing_value2; Address with part of outgoing transactions in close proximity to obliged service with no KYC process
- 178; limited_KYC; Address belongs to obliged service with limited KYC process
- 179; terrorist_financing_incoming_taint;
- 180; limited_kyc_incoming_value1; Address with significant part of incoming transactions in close proximity to obliged service with limited KYC process
- 181; limited_kyc_incoming_value2; Address with part of incoming transactions in close proximity to obliged service with limited KYC process
- 182; rec_from_ico; Address receiving funds from Initial Coin Offering payment address
- 183; limited_kyc_outgoing_value1; Address with significant part of outgoing transactions in close proximity to obliged service with limited KYC process
- 184; limited_kyc_outgoing_value2; Address with part of outgoing transactions in close proximity to obliged service with limited KYC process
- 185; ico_contract_creator; Address creating Initial Coin Offering smart contract
- 186; not_functioning_service; Address belongs to shutdown or inactive service
- 187; ransomware_layering; Address being a part of funds layering/mixing scheme related to ransomware
- 188; payment_processor; Address belongs to payment processor
- 189; deep_market_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses related to darknet markets
- 190; hacker_outgoing_value1; Address with significant part of outgoing transactions in close proximity to hacker's addresses
- 191; deep_market_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses related to darknet markets
- 192; hacker_outgoing_value2; Address with part of outgoing transactions in close proximity to hacker's addresses
- 193; card_provider; Address belongs to payment cards provider
- 194; inactive_user; Inactive address
- 195; active_inactive_user; Active-inactive address
- 196; proof_of_burn_address; Address is proof of burn address
- 197; sanctioned_country_sub_incoming_taint;

198; sanctioned_subject_incoming_taint;
199; dex_user; Decentralized Exchange User
200; negative_news; Negative news
201; charged_with_ml; Owner charged with Money Laundering
202; licensed_owner;
203; atm_chain_owner; Address belongs to an ATM chain
204; atm_settlement_address; Address is a cryptocurrency ATM settlement address
205; forum_user;
206; unauthorized_withdrawal;
207; unauthorized_withdrawal_layering; Address being a part of funds layering/mixing scheme related to unauthorized withdrawal
208; unauthorized_withdrawal_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to unauthorized withdrawal
209; unauthorized_withdrawal_incoming_value2; Address with significant part of incoming transactions in close proximity to addresses related to unauthorized withdrawal
210; cold_wallet;
211; settlement;
212; user_deposit;
213; user_withdrawal;
214; donation;
215; payment_acceptance;
216; sanctioned_subject; Address related to subject appearing in sanctions lists
217; sanctioned_subject_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to subject appearing in sanctions lists
218; sanctioned_subject_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to subject appearing in sanctions lists
219; sanctioned_subject_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses related to subject appearing in sanctions lists
220; sanctioned_subject_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses related to subject appearing in sanctions lists
221; geo_restr_outgoing; Address with outgoing transactions initiated from IP address located in sanctioned country
222; geo_restr_incoming_value; Address with significant part of incoming transactions initiated from IP address located in sanctioned country
223; tor_outgoing; Address with outgoing transactions initiated from anonymous network exit node
224; tor_incoming_value; Address with significant part of incoming transactions initiated from anonymous network exit node
225; pol_person; Address related to politically exposed person (PEP)
226; pol_person_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to politically exposed persons (PEPs)
227; pol_person_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to politically exposed persons (PEPs)
228; pol_person_outgoing_value1; Address with significant part of outgoing transactions in close proximity to addresses related to politically exposed persons (PEPs)
229; pol_person_outgoing_value2; Address with part of outgoing transactions in close proximity to addresses related to politically exposed persons (PEPs)
230; banks_financial;
231; manufacturing;
232; geo_restr_outgoing_value; Address with significant part of outgoing transactions initiated from IP address located in sanctioned country
233; tor_outgoing_value; Address with significant part of outgoing transactions initiated from anonymous network exit node
234; identity_theft; Address directly related to identity theft

235; identity_theft_layering; Address being a part of funds layering/mixing scheme related to identity theft

236; id_theft_incoming_value1; Address with significant part of incoming transactions in close proximity to addresses related to identity theft

237; id_theft_incoming_value2; Address with part of incoming transactions in close proximity to addresses related to identity theft

238; fiat_crypto_swap_gateway; Address belongs to entity that allows instant crypto to fiat currency on ramp swaps

239; dex_exchange; Address belongs to decentralized exchange

240; dex_exchange_incoming_value1; Address with significant part of incoming transactions in close proximity to decentralized exchange

241; dex_exchange_incoming_value2; Address with part of incoming transactions in close proximity to decentralized exchange addresses

242; dex_exchange_outgoing_value1; Address with significant part of outgoing transactions in close proximity to decentralized exchange addresses

243; dex_exchange_outgoing_value2; Address with part of outgoing transactions in close proximity to over the decentralized exchange addresses

244; defi; Address belongs to decentralized finance service

245; sanctioned_subject_layering; Address being a part of funds layering scheme related to sanctioned subjects

246; cashback; Address belongs to cashback service

247; sanctioned_country_sub_targeted; Address directly related to subject from a country subject to targeted sanctions

248; sanctioned_country_sub_incoming_direct; Address with transactions directly incoming from the subject from a sanctioned country

249; sanctioned_country_sub_outgoing_direct; Address with transactions directly outgoing to the subject from a sanctioned country

250; sanctioned_subject_incoming_direct; Address with transactions directly incoming from addresses related to subject appearing in sanctions lists

251; sanctioned_subject_outgoing_direct; Address with transactions directly outgoing to addresses related to subject appearing in sanctions lists

252; full_kyc;

253; no_legal_entity; Financial service with no legal entity

254; nft_smart_contract; Address is a smart contract for non-fungible tokens

255; trusted_member;

©2022 All contents of this document are covered by copyright.

This document was prepared by Coinfirm Limited, registered at 16 Great Chapel Street, London, England, W1F 8FL, and cannot be used or reproduced in whole and parts without prior written confirmation.

If you any questions, please contact us via: contact@coinfirm.com
www.coinfirm.com