



SMART CONTRACT SECURITY AUDIT

Human Asset Token

January, 2022

Website: soken.io

Table of Contents

Table of Contents	2
Disclaimer	3
Procedure	4
Terminology	5
Limitations	5
Token Contract Details for 27.01.2022	6
Audit Details	6
KYC Passed	6
Social Profiles	7
Contract Analytics	7
HATOK Token Distribution	8
Swap Analysis	9
Contract Analysis	9
Holder Analysis	9
Contract Analysis	9
Project Website Overview	10
Project Website SSL Certification	10
Project Website Performance Audit	11
Project Website Optimization for Mobile	11
Whitepaper of the project	12
Contract Function Details	13
Vulnerabilities checking	17
Security Issues	18
Conclusion	19
Soken Contact Info	20

Disclaimer

This is a comprehensive report based on our automated and manual examination of cybersecurity vulnerabilities and framework flaws. We took into consideration smart contract based algorithms, as well. Reading the full analysis report is essential to build your understanding of project's security level. It is crucial to take note, though we have done our best to perform this analysis and report, that you should not rely on the our research and cannot claim what it states or how we created it. Before making any judgments, you have to conduct your own independent research. We will discuss this in more depth in the following disclaimer - please read it fully.

DISCLAIMER: You agree to the terms of this disclaimer by reading this report or any portion thereof. Please stop reading this report and remove and delete any copies of this report that you download and/or print if you do not agree to these conditions. This report is for non-reliability information only and does not represent investment advice. No one shall be entitled to depend on the report or its contents, and Soken and its affiliates shall not be held responsible to you or anyone else, nor shall Soken provide any guarantee or representation to any person with regard to the accuracy or integrity of the report. Without any terms, warranties or other conditions other than as set forth in that exclusion and Soken excludes hereby all representations, warrants, conditions and other terms (including, without limitation, guarantees implied by the law of satisfactory quality, fitness for purposes and the use of reasonable care and skills). The report is provided as "as is" and does not contain any terms and conditions. Except as legally banned, Soken disclaims all responsibility and responsibilities and no claim against Soken is made to any amount or type of loss or damages (without limitation, direct, indirect, special, punitive, consequential or pure economic loses or losses) that may be caused by you or any other person, or any damages or damages, including without limitations (whether innocent or negligent).

Security analysis is based only on the smart contracts. No applications or operations were reviewed for security. No product code has been reviewed.

Procedure

Our analysis contains following steps:

1. Project Analysis;

2. Manual analysis of smart contracts:

- Deploying smart contracts on any of the network(Ropsten/Rinkeby) using Remix IDE
- Hashes of all transaction will be recorded
- Behaviour of functions and gas consumption is noted, as well.

3. Unit Testing:

- Smart contract functions will be unit tested on multiple parameters and under multiple conditions to ensure that all paths of functions are functioning as intended.
- In this phase intended behaviour of smart contract is verified.
- In this phase, we would also ensure that smart contract functions are not consuming unnecessary gas.
- Gas limits of functions will be verified in this stage.

4. Automated Testing:

- Mythril
- Oyente
- Manticore
- Solgraph

Terminology

We categorize the finding into 4 categories based on their vulnerability:

- Low-severity issue — less important, must be analyzed
- Medium-severity issue — important, needs to be analyzed and fixed
- High-severity issue — important, might cause vulnerabilities, must be analyzed and fixed
- Critical-severity issue — serious bug causes, must be analyzed and fixed.

Limitations

The security audit of Smart Contract cannot cover all vulnerabilities. Even if no vulnerabilities are detected in the audit, there is no guarantee that future smart contracts are safe. Smart contracts are in most cases safeguarded against specific sorts of attacks. In order to find as many flaws as possible, we carried out a comprehensive smart contract audit. Audit is a document that is not legally binding and guarantees nothing.

Token Contract Details for 27.01.2022

Contract Name: **HATOK**

Deployed address: **0xeb9a5CeE5Ece46338C82bDe90aF677585Ee6F806**

Total Supply: **2,000,000,000,000,000**

Token Tracker: **HATOK**

Decimals: **18**

Token holders: **5960**

Transactions count: **21182**

Top 100 holders dominance: **96.78%**

Audit Details



Project Name: **HATOK**

Language: **Solidity**

Compiler Version: **v0.8.10**

Blockchain: **BSC**

KYC Passed

The CEO of HATOK project has passed KYC verification on behalf of Soken team. All personal data received from audited company will remain private until any fraudulent activity will happen.

Social Profiles

Project Website: <https://www.hatok.io/>

Project Twitter: <https://twitter.com/humanassetoken>

Project Telegram: <https://t.me/humanassetoken>

Project Telegram Announcement: <https://t.me/hatokchannel>

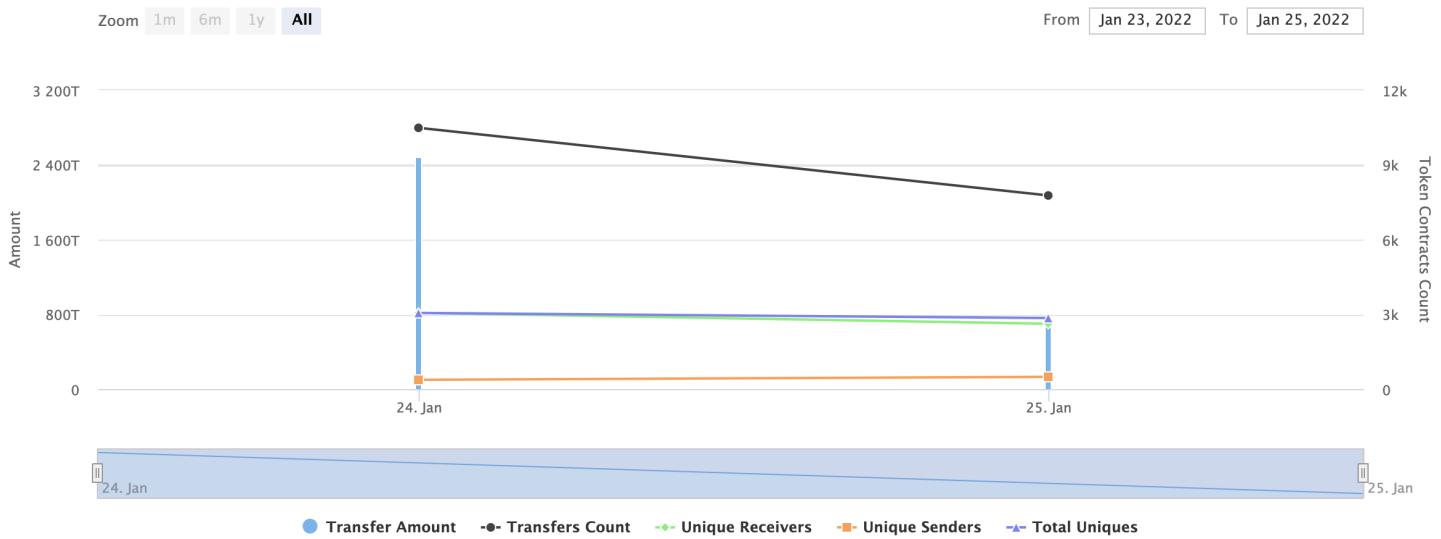
Project Telegram Chinese Group: <https://t.me/hatokchinese>

Project Telegram French Group: <https://t.me/hatokfrench>

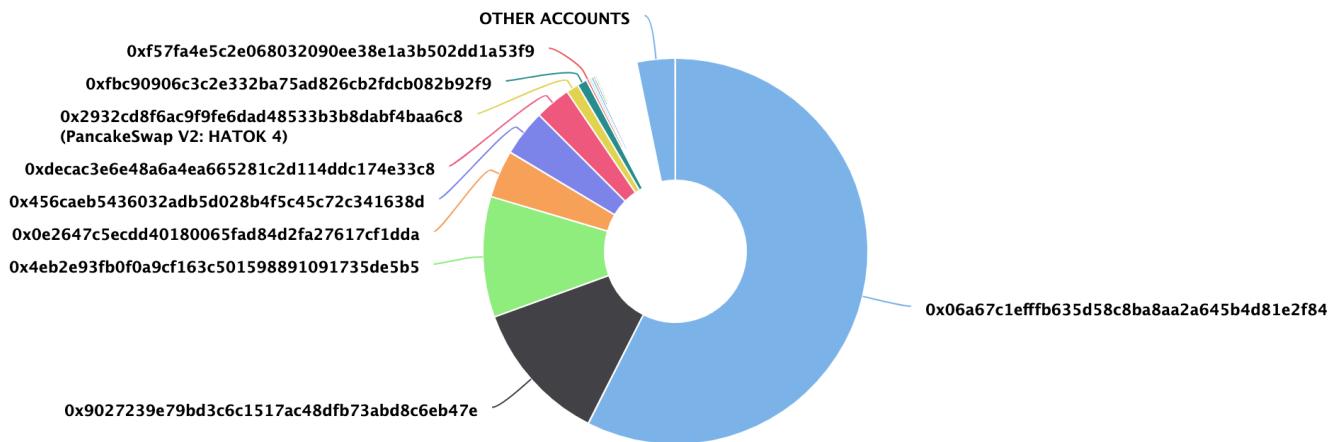
Project Instagram: <https://instagram.com/humanassetoken>

Project Reddit: <https://www.reddit.com/r/humanassetoken/>

Contract Analytics



HATOK Token Distribution



HATOK Top Holders

Rank	Address	Quantity (Token)	Percentage
1	0x06a67c1efffb635d58c8ba8aa2a645b4d81e2f84	1,149,743,559,441,580.327127718610057058	57.4872%
2	0x9027239e79bd3c6c1517ac48dfb73abd8c6eb47e	240,000,000,000,000	12.0000%
3	0x4eb2e93fb0f0a9cf163c501598891091735de5b5	202,000,000,000,000	10.1000%
4	0xe2647c5ecdd40180065fad84d2fa27617cf1dda	80,000,001,600,763,421,065,708,188,803,569	4.0000%
5	0x456caeb5436032adb5d028b4f5c45c72c341638d	78,000,004,928,067,698,364,086,733,106,766	3.9000%
6	0xdecac3e6e48a6a4ea665281c2d114ddc174e33c8	60,000,004,101,162,376,880,392,685,761,121	3.0000%
7	0xe2932cd8f6ac9f9fe6dad48533b3b8dabf4baa6c8 (PancakeSwap V2: HATOK 4)	20,849,223,517,050,464,819,306,144,937,149	1.0425%
8	0xfbc90906c3c2e332ba75ad826cb2fdcb082b92f9	16,648,298,156,143,872,922,596,282,592,158	0.8324%
9	0xf57fa4e5c2e068032090ee38e1a3b502dd1a53f9	4,250,369,003,557,618,544,855,850,395,271	0.2125%
10	0xe981fde77e45a7a4d0bd8f721373d82d3bc17a04	4,003,785,046,000,211,426,271,412,836,14	0.2002%

Swap Analysis

- ✗ Token is sellable (not a honeypot) at this time

Contract Analysis

- ✓ Verified contract source
- ✗ No prior similar token contracts
- ✗ Ownership renounced or source does not contain an owner contract.

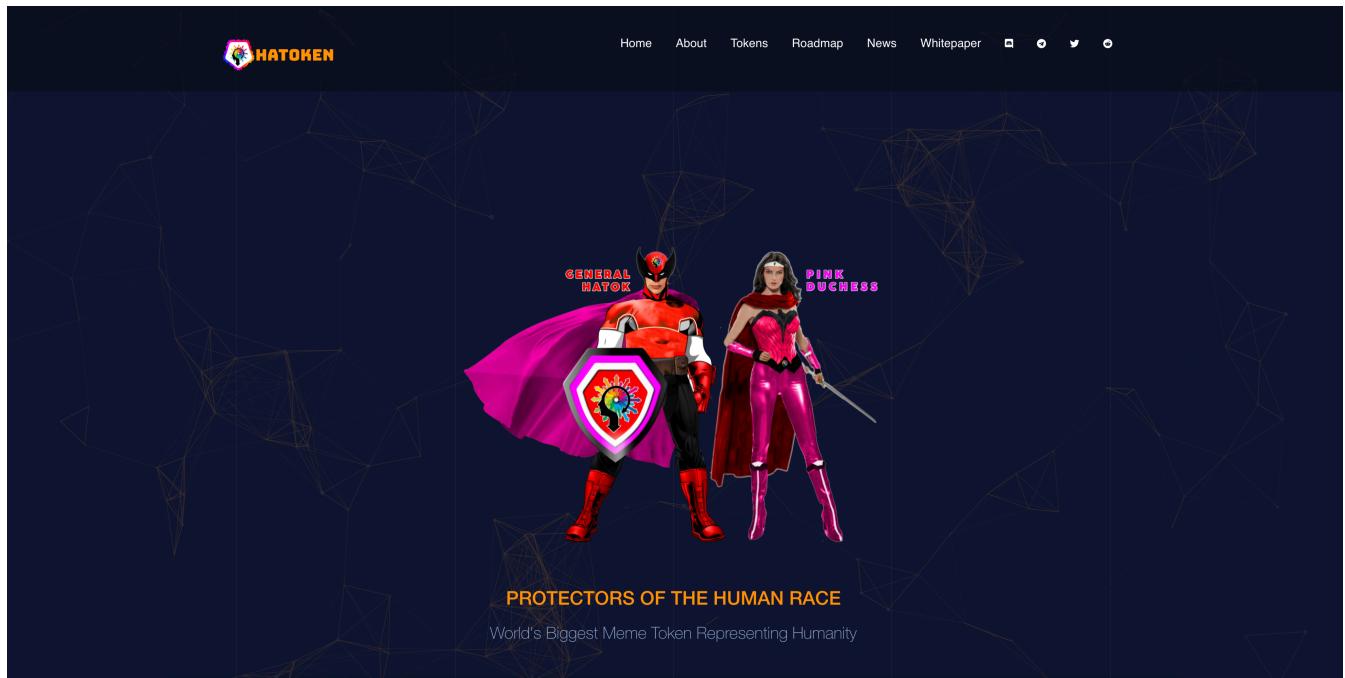
Holder Analysis

- ✗ Owner/creator wallet contains less than 5% of token supply
- ✗ All other holders possess less than 5% of token supply

Contract Analysis

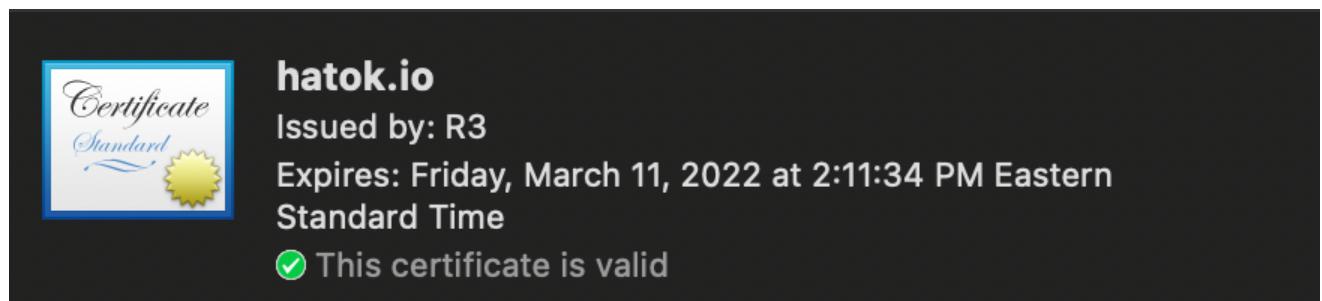
- ✓ Adequate liquidity present
- ✗ At least 95% of liquidity burned/locked (10.71% in Unilocker)
- ✗ Owner/creator wallet contains less than 5% of liquidity

Project Website Overview



- ✓ JavaScript errors hasn't been found.
- ✓ Malware pop-up windows hasn't been detected.
- ✓ No issues with loading elements, code, or stylesheets.

Project Website SSL Certification



Project Website Performance Audit

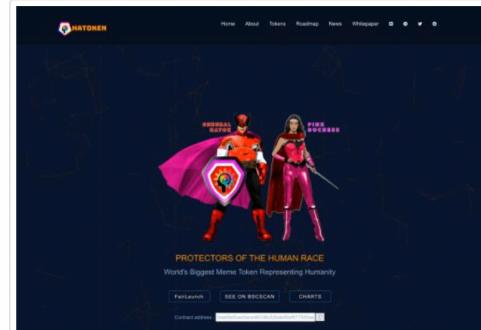
<https://www.hatok.io/>



Performance

Values are estimated and may vary. The [performance score is calculated](#) directly from these metrics. [See calculator.](#)

▲ 0–49 ■ 50–89 ● 90–100



IICS

Expand view

First Contentful Paint

1.0 s

Speed Index

4.9 s

Largest Contentful Paint

6.6 s

▲ Time to Interactive

4.7 s

■ Total Blocking Time

200 ms

● Cumulative Layout Shift

0.046

Project Website Optimization for Mobile

<https://www.hatok.io/>



Performance

Values are estimated and may vary. The [performance score is calculated](#) directly from these metrics. [See calculator.](#)

▲ 0–49 ■ 50–89 ● 90–100



METRICS

Expand view

▲ First Contentful Paint

3.9 s

▲ Speed Index

28.6 s

▲ Largest Contentful Paint

36.6 s

▲ Time to Interactive

27.9 s

▲ Total Blocking Time

1,720 ms

■ Cumulative Layout Shift

0.107

Whitepaper of the project

The whitepaper of HATOK project has been verified on behalf of Soken team.



Whitepaper link: <https://www.hatok.io/pdf/whitepaper.pdf>

Contract Function Details

- + Contract Source Code
- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer
- [Ext] allowance
- [Ext] approve
- [Ext] transferFrom
- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div
- [Int] mod
- [Int] mod
- [Int] _msgSender
- [Int] _msgData
- [Int] isContract
- [Int] sendValue
- [Int] functionCall
- [Int] functionCall
- [Int] functionCallWithValue
- [Int] functionCallWithValue
- [Prv] _functionCallWithValue
- [Pub] owner
- [Pub] renounceOwnership
- [Pub] transferOwnership
- [Pub] geUnlockTime
- [Pub] lock
- [Pub] unlock
- [Ext] feeTo
- [Ext] feeToSetter
- [Ext] getPair
- [Ext] allPairs
- [Ext] allPairsLength
- [Ext] createPair
- [Ext] setFeeTo
- [Ext] setFeeToSetter
- [Ext] name
- [Ext] symbol
- [Ext] decimals
- [Ext] totalSupply
- [Ext] balanceOf

- [Ext] allowance
- [Ext] approve
- [Ext] transfer
- [Ext] transferFrom
- [Ext] DOMAIN_SEPARATOR
- [Ext] PERMIT_TYPEHASH
- [Ext] nonces
- [Ext] permit
- [Ext] MINIMUM_LIQUIDITY
- [Ext] factory
- [Ext] token0
- [Ext] token1
- [Ext] getReserves
- [Ext] price0CumulativeLast
- [Ext] price1CumulativeLast
- [Ext] kLast
- [Ext] burn
- [Ext] swap
- [Ext] skim
- [Ext] sync
- [Ext] initialize
- [Ext] factory
- [Ext] WETH
- [Ext] addLiquidity
- [Ext] addLiquidityETH
- [Ext] removeLiquidity
- [Ext] removeLiquidityETH
- [Ext] removeLiquidityWithPermit
- [Ext] removeLiquidityETHWithPermit
- [Ext] swapExactTokensForTokens
- [Ext] swapTokensForExactTokens
- [Ext] swapExactETHForTokens
- [Ext] swapTokensForExactETH
- [Ext] swapExactTokensForETH
- [Ext] swapETHForExactTokens
- [Ext] quote
- [Ext] getAmountOut
- [Ext] getAmountIn
- [Ext] getAmountsOut
- [Ext] getAmountsIn
- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens

- [Ext] setTokenOwner
- [Ext] onPreTransferCheck
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer
- [Pub] allowance
- [Pub] approve
- [Pub] transferFrom
- [Pub] increaseAllowance
- [Pub] decreaseAllowance
- [Pub] isExcludedFromReward
- [Pub] totalFees
- [Pub] deliver
- [Pub] reflectionFromToken
- [Pub] tokenFromReflection
- [Pub] excludeFromReward
- [Ext] includeInReward
- [Prv] _transferBothExcluded
- [Prv] _reflectFee
- [Prv] _getValues
- [Prv] _getTValues
- [Prv] _getRValues
- [Prv] _getRate
- [Prv] _getCurrentSupply
- [Prv] _takeLiquidity
- [Prv] calculateTaxFee
- [Prv] calculateLiquidityFee
- [Prv] removeAllFee
- [Pub] isExcludedFromFee
- [Prv] _approve
- [Prv] _transfer
- [Prv] swapAndLiquify
- [Prv] swapTokensForEth
- [Prv] addLiquidity
- [Prv] _tokenTransfer
- [Prv] _transferStandard
- [Prv] takeMarketing
- [Prv] _transferToExcluded
- [Prv] _transferFromExcluded
- [Pub] excludeFromFee
- [Ext] setEnableAntiBot
- [Pub] includeInFee

- [Ext] setMarketingWallet
- [Ext] setBuyFeePercent
- [Ext] setSellFeePercent
- [Ext] setNumTokensSellToAddToLiquidity
- [Ext] setMaxTxAmount
- [Pub] setRouterAddress
- [Pub] csetSwapAndLiquifyEnabled
- [Prv] transferToAddressETH

Vulnerabilities checking

Issue Description	Checking Status
Compiler Errors	Completed
Delays in Data Delivery	Completed
Re-entrancy	Completed
Transaction-Ordering Dependence	Completed
Timestamp Dependence	Completed
Shadowing State Variables	Completed
DoS with Failed Call	Completed
DoS with Block Gas Limit	Completed
Outdated Complier Version	Completed
Assert Violation	Completed
Use of Deprecated Solidity Functions	Completed
Integer Overflow and Underflow	Completed
Function Default Visibility	Completed
Malicious Event Log	Completed
Math Accuracy	Completed
Design Logic	Completed
Fallback Function Security	Completed
Cross-function Race Conditions	Completed
Safe Zeppelin Module	Completed

Security Issues

1) Owner Privileges

The contract contains ownership functionality and ownership is not renounced which allows the creator or current owner to modify contract behaviour (for example, disable selling or mint new tokens).

2) Volatile Code:

The return values of functions

`swapExactTokensForETHSupportingFeeOnTransferTokens` and

`addLiquidityETH` are not properly handled.

Recommendation:

We recommend using variables to receive the return value of the functions mentioned above and handle both success and failure cases if needed by the business logic.

Conclusion

Low-severity issues exist within smart contracts. Smart contracts are free from any critical or high-severity issues.

NOTE: Please check the disclaimer above and note, that audit makes no statements or warranties on business model, investment attractiveness or code sustainability.

Soken Contact Info

Website: www.soken.io

Mob: (+1)416-875-4174

32 Britain Street, Toronto, Ontario, Canada

Telegram: @team_soken

GitHub: sokenteam

Twitter: @soken_team

