soken

SMART CONTRACT SECURITY AUDIT

Shera

Scan and check this report was posted at Soken Github

May, 2022

Website: soken.io

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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.

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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 13.05.2022

Contract Name: **Shera**

Deployed address: **0xe2C5fCF777A2B860921116B275951A50e8135EEb**

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

Token Tracker: **SHR**

Decimals: **9**

Token holders: **840**

Transactions count: **9 125**

Top 100 holders dominance: **98.69%**

Audit Details

Project Name: **Shera**

Language: **Solidity**

Compiler Version: **v0.8.10**

Blockchain: **BSC**

Social Profiles

Project Website: **https://sheratokens.com/**

Project Twitter: **https://twitter.com/sheratokens**

Project Telegram: **https://t.me/sheratokens**

Project Facebook: **https://www.facebook.com/sheratokens**

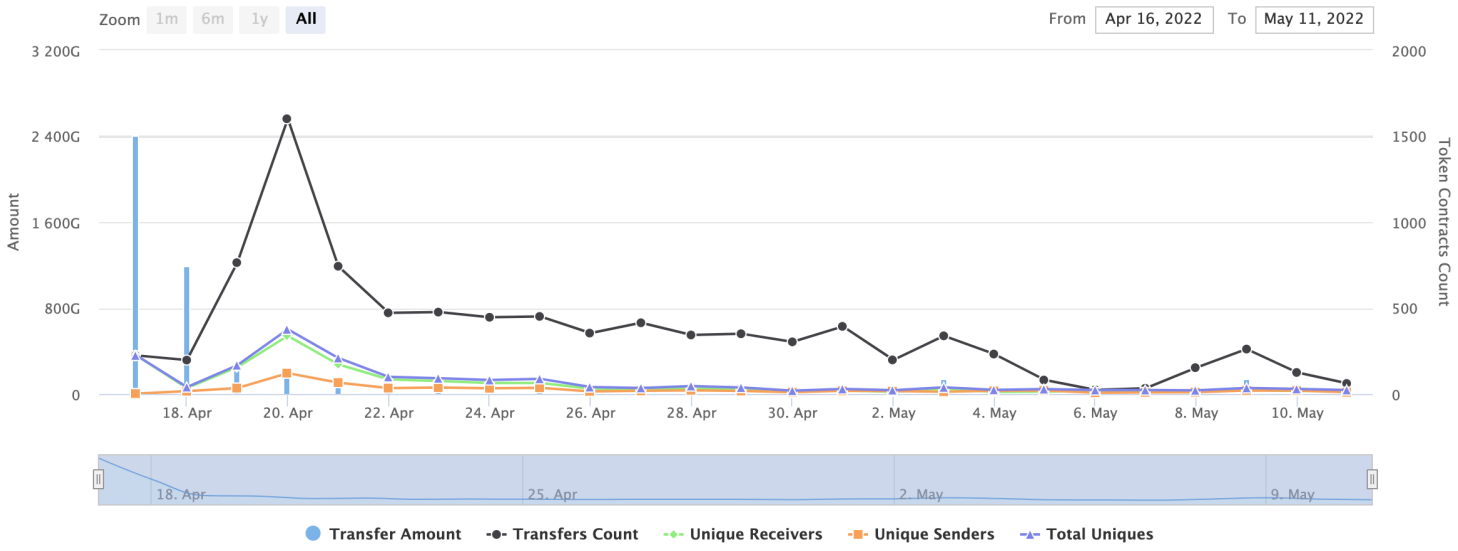
Project YouTube: **https://www.youtube.com/c/Sheratokens**

Project Medium: **https://medium.com/@sheratokens**

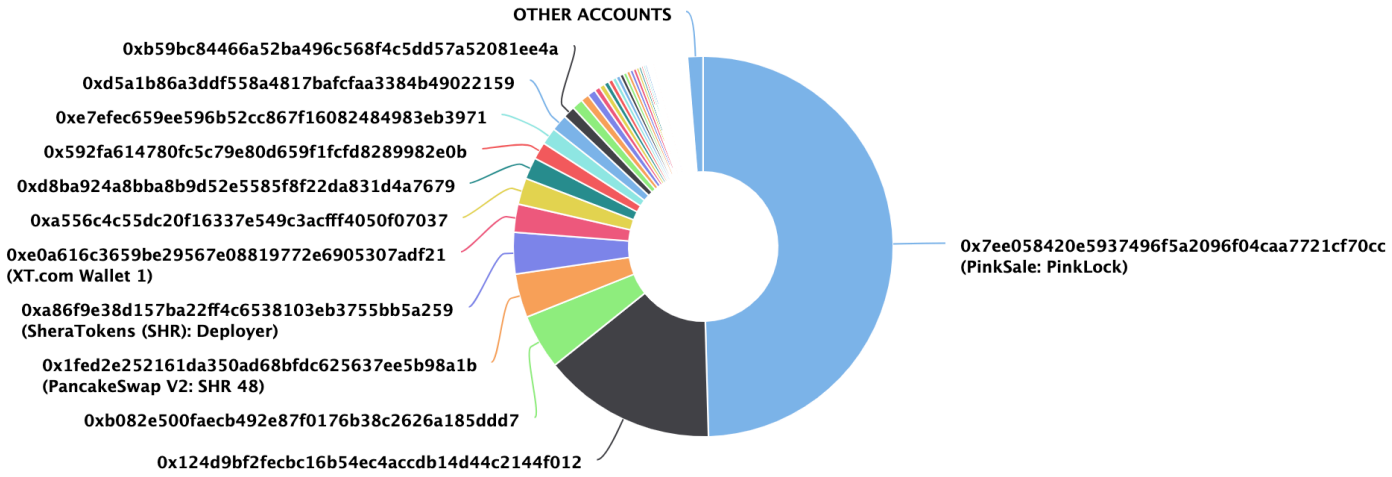
Project Reddit: **https://www.reddit.com/user/sheratokens**

Project Instagram: **https://www.instagram.com/sheratokens/**

Contract Analytics



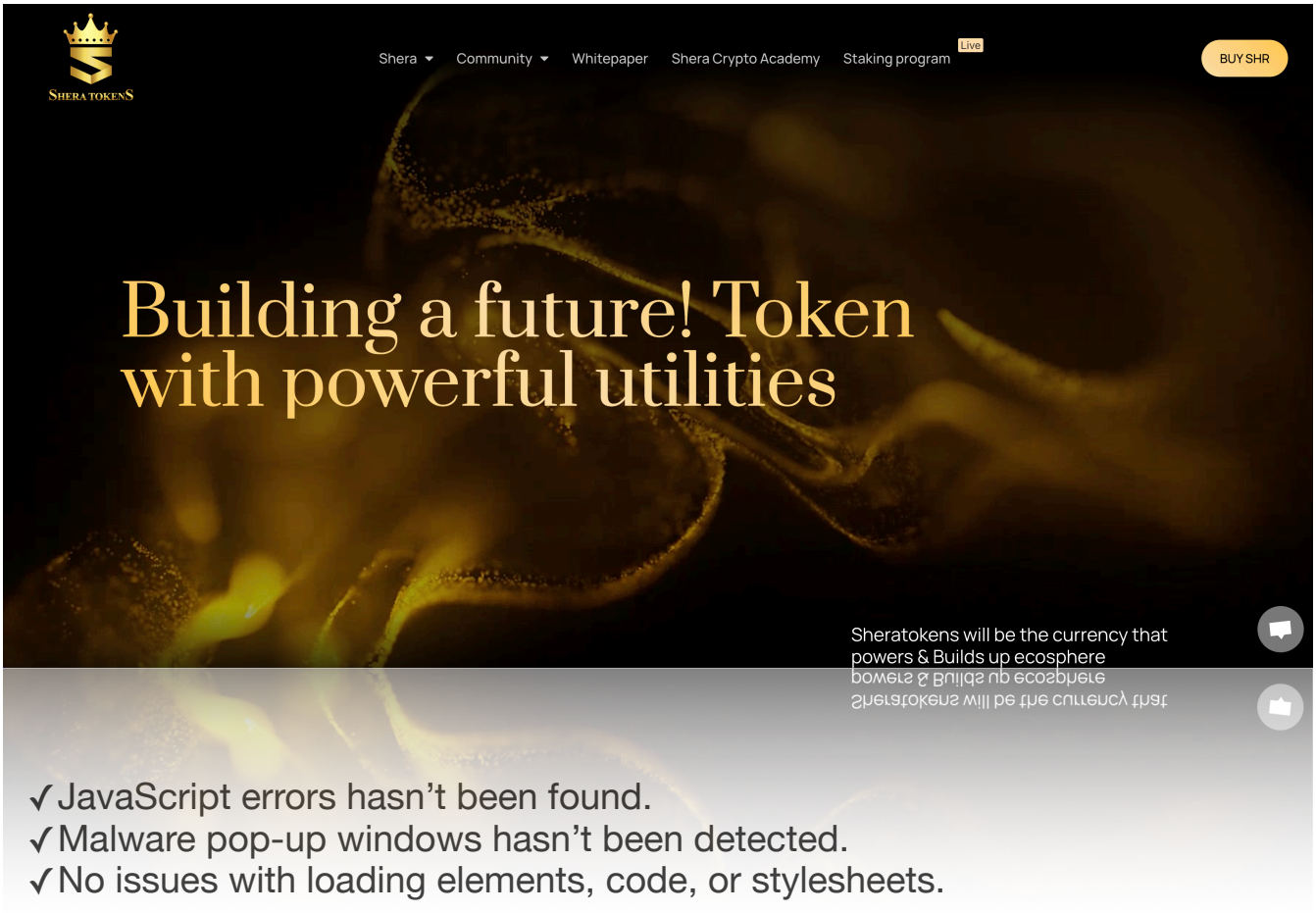
SHR Token Distribution



SHR Top Holders

Rank	Address	Quantity (Token)	Percentage
1	PinkSale: PinkLock	991,036,211,406	49.5518%
2	0x124d9bf2fecbc16b54ec4accdb14d44c2144f012	294,450,181,581.472981594	14.7225%
3	0xb082e500faecb492e87f0176b38c2626a185ddd7	93,721,578,077	4.6861%
4	PancakeSwap V2: SHR 48	74,334,356,020.593705062	3.7167%
5	SheraTokens (SHR): Deployer	70,442,282,716.704263186	3.5221%
6	XT.com Wallet 1	47,738,832,442.77	2.3869%
7	0xa556c4c55dc20f16337e549c3acfff4050f07037	44,785,485,877.318557341	2.2393%
8	0xd8ba924a8bba8b9d52e5585f8f22da831d4a7679	36,913,536,485.156210668	1.8457%
9	0x592fa614780fc5c79e80d659f1fcfd8289982e0b	29,365,383,132.856537726	1.4683%
10	0xe7efec659ee596b52cc867f16082484983eb3971	29,009,652,375.086819828	1.4505%

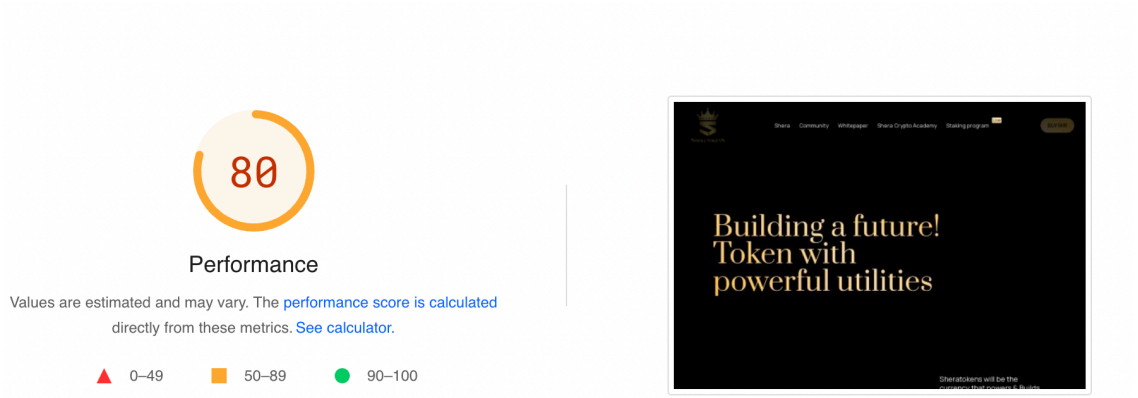
Project Website Overview



✓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

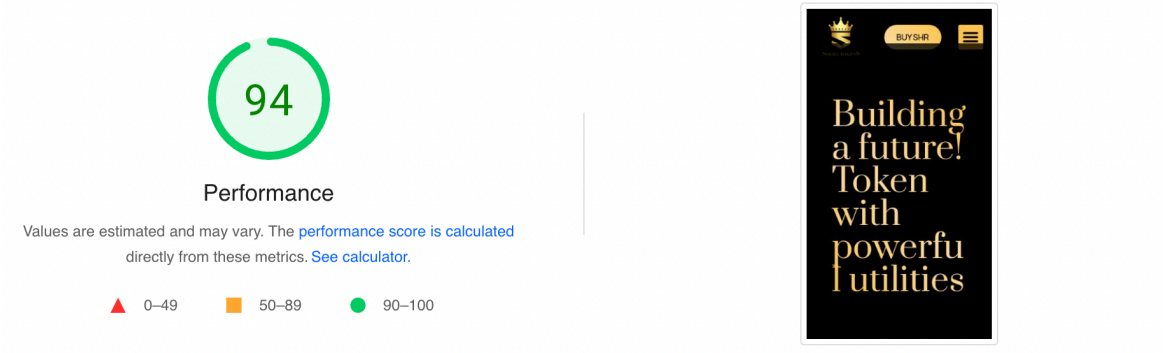


RICS

Expand vie

First Contentful Paint 0.6 s	Time to Interactive 1.4 s
Speed Index 1.1 s	Total Blocking Time 400 ms
Largest Contentful Paint 1.1 s	Cumulative Layout Shift 0

Project Website Optimization for Mobile



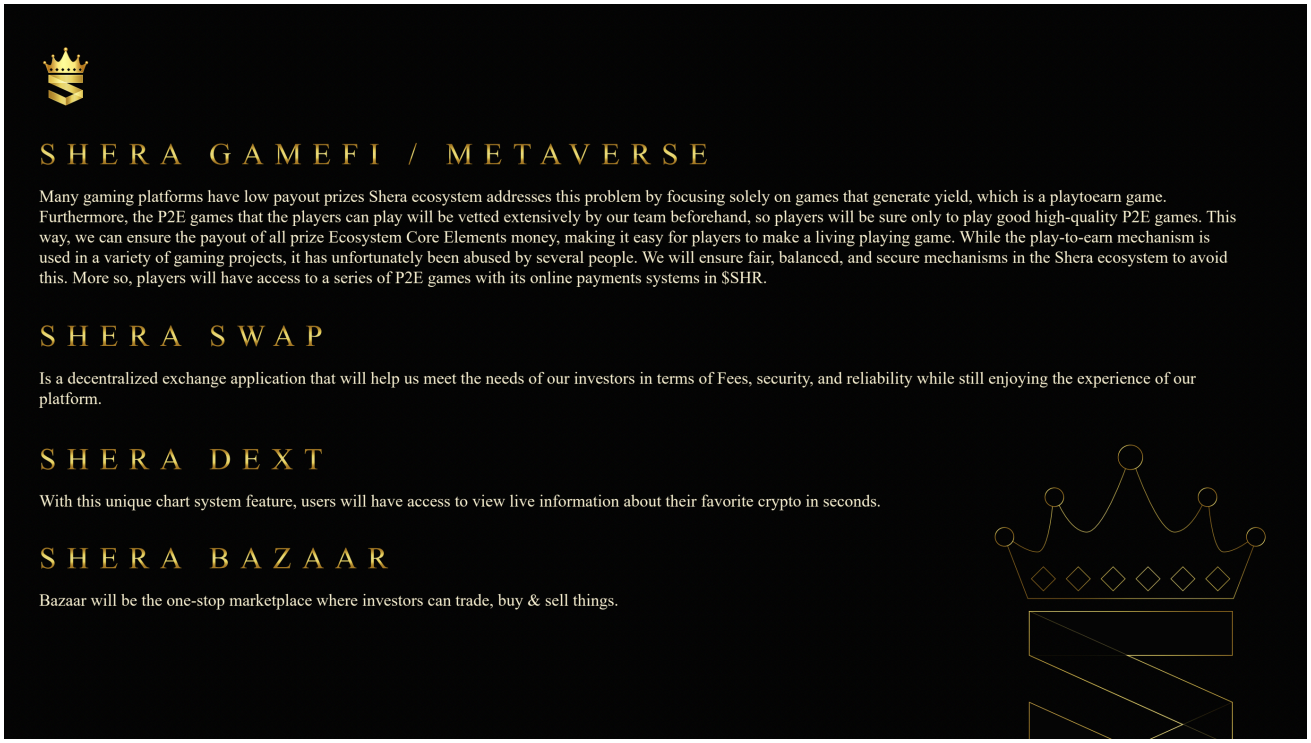
ETRICS

Expand vie

First Contentful Paint 1.9 s	Time to Interactive 1.9 s
Speed Index 1.9 s	Total Blocking Time 0 ms
Largest Contentful Paint 3.0 s	Cumulative Layout Shift 0.001

Whitepaper of the project

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



Link: **https://sheratokens.com/wp-content/uploads/2022/04/SheraToken-Whitepaper.pdf**

Swap Analysis

✔ Token is sellable (not a honeypot) at this time

✔ Buy fee is <= 10% (9.9%)

✔ Sell fee is <= 10% (10%)

Contract Analysis

✔ Verified contract source

✘ Source does not contain a fee modifier

✘ Ownership renounced or source does not contain an owner contract.

Holder Analysis

✔ Owner/creator wallet contains less than 5% of token supply (3.52%)

✔ Tokens locked (49.55%)

Contract Analysis

✔ Adequate liquidity present (31.64 BNB)

✘ At least 95% of liquidity burned/locked (<0.01%)

Contract Function Details

- [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
- [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] openTrade
- [Ext] includeToWhiteList
- [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] calculateBurnFee
- [Prv] calculateLiquidityFee
- [Prv] removeAllFee
- [Prv] restoreAllFee
- [Pub] isExcludedFromFee
- [Prv] _approve
- [Prv] _transfer
- [Prv] swapAndLiquify
- [Prv] swapTokensForEth
- [Prv] addLiquidity
- [Prv] _tokenTransfer
- [Prv] _transferStandard
- [Prv] takeMarketing
- [Prv] _transferToExcluded
- [Prv] _transferFromExcluded
- [Pub] excludeFromFee
- [Pub] includeInFee
- [Ext] setMarketingWallet
- [Ext] setBuyFeePercent

- [Ext] setSellFeePercent
- [Ext] SetTransferFee
- [Ext] setNumTokensSellToAddToLiquidity
- [Pub] setRouterAddress
- [Pub] setSwapAndLiquifyEnabled
- [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.

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