



TechRate
AUDIT COMPANY

Smart Contract Security Audit

TechRate

July, 2021

Audit Details



Audited project

SportzStarz



Deployer address

0x87057B3CFA76383BBfb48Cbeaa0E3eE66D3276fc



Client contacts:

SportzStarz team



Blockchain

Binance Smart Chain



Project website:

Not provided

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

TechRate was commissioned by SportzStarz to perform an audit of smart contracts:

<https://bscscan.com/address/0xec28e050122a9ca841286cecafd657e8fa74e86d#code>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contracts Details

Token contract details for 22.07.2021

| | |
|----------------------------------|--|
| Contract name | SSTARZ |
| Contract address | 0xec28e050122A9cA841286CEcAFd657e8fa74e86D |
| Total supply | 1,000,000,000,000,000 |
| Token ticker | SSTARZ |
| Decimals | 9 |
| Token holders | 1 |
| Transactions count | 2 |
| Top 100 holders dominance | 100.00% |
| Liquidity fee | 4 |
| BNB rewards fee | 4 |
| BuyBack fee | 4 |
| Total fees | 12 |
| Dividend tracker | 0xefd361b8ee748d4c1491da87bc3bc3378bcbdc14 |
| Uniswap V2 pair | 0x8c2b27139e3881e143a6104afa3d5727c05bfc91 |
| Contract deployer address | 0x87057B3CFA76383BBfb48Cbeaa0E3eE66D3276fc |
| Contract's current owner address | 0x30c65c31d42d39de1b4c96d3536c61d01187aee2 |

SportzStarz Token Distribution

The top 100 holders collectively own 100.00% (1,000,000,000,000.00 Tokens) of SportzStarz

Token Total Supply: 1,000,000,000,000.00 Token | Total Token Holders: 1

SportzStarz Top 100 Token Holders
Source: BscScan.com



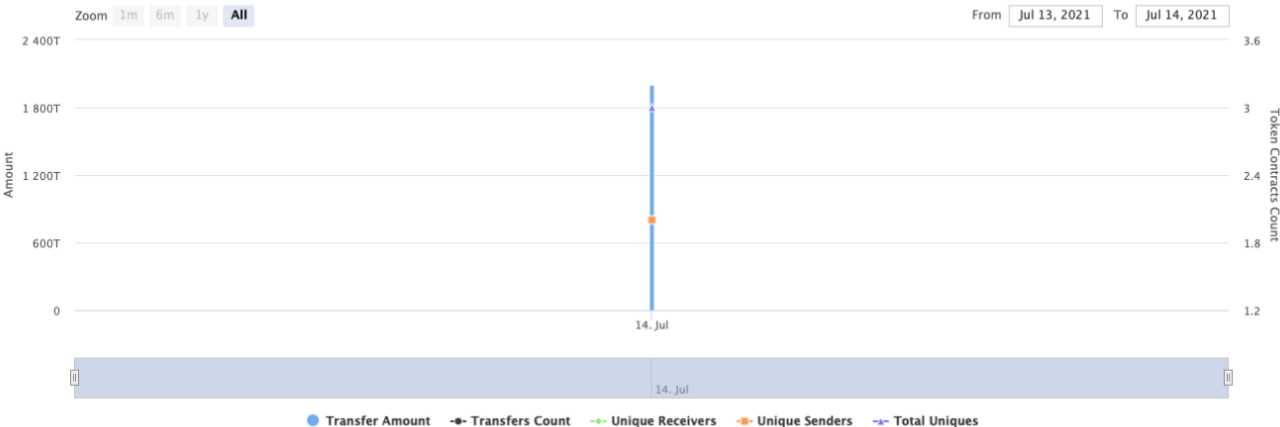
(A total of 1,000,000,000,000.00 tokens held by the top 100 accounts from the total supply of 1,000,000,000,000.00 token)

SportzStarz Contract Interaction Details

Time Series: Token Contract Overview

Wed 14, Jul 2021 - Wed 14, Jul 2021

Token Contract 0xec28e050122a9ca841286cecafd657e8fa74e86d (SportzStarz)
Source: BscScan.com



SportzStarz Top 10 Token Holders

| Rank | Address | Quantity (Token) | Percentage |
|------|--|-----------------------|------------|
| 1 | 0x30c65c31d42d39de1b4c96d3536c61d01187aee2 | 1,000,000,000,000,000 | 100.0000% |



Contract functions details

- + [Lib] SafeMathUint
 - [Int] toInt256Safe
- + [Lib] SafeMathInt
 - [Int] mul
 - [Int] div
 - [Int] sub
 - [Int] add
 - [Int] abs
 - [Int] toUint256Safe
- + [Lib] SafeMath
 - [Int] add
 - [Int] sub
 - [Int] sub
 - [Int] mul
 - [Int] div
 - [Int] div
 - [Int] mod
 - [Int] mod
- + Ownable (Context)
 - [Pub] <Constructor> #
 - [Pub] owner
 - [Pub] renounceOwnership #
 - modifiers: onlyOwner
 - [Pub] transferOwnership #
 - modifiers: onlyOwner
- + [Int] IUniswapV2Router01
 - [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
- + [Int] IUniswapV2Router02 (IUniswapV2Router01)

- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

- + [Int] IUniswapV2Pair
 - [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] mint #
 - [Ext] burn #
 - [Ext] swap #
 - [Ext] skim #
 - [Ext] sync #
 - [Ext] initialize #

- + [Int] IUniswapV2Factory
 - [Ext] feeTo
 - [Ext] feeToSetter
 - [Ext] getPair
 - [Ext] allPairs
 - [Ext] allPairsLength
 - [Ext] createPair #
 - [Ext] setFeeTo #
 - [Ext] setFeeToSetter #

- + [Lib] IterableMapping
 - [Pub] get
 - [Pub] getIndexOfKey
 - [Pub] getKeyAtIndex
 - [Pub] size
 - [Pub] set #
 - [Pub] remove #

- + [Int] IERC20Metadata (IERC20)
 - [Ext] name

- [Ext] symbol
- [Ext] decimals

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ ERC20 (Context, IERC20, IERC20Metadata)

- [Pub] <Constructor> #
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Int] _transfer #
- [Int] _mint #
- [Int] _burn #
- [Int] _approve #
- [Int] _beforeTokenTransfer #

+ [Int] DividendPayingTokenOptionalInterface

- [Ext] withdrawableDividendOf
- [Ext] withdrawnDividendOf
- [Ext] accumulativeDividendOf

+ [Int] DividendPayingTokenInterface

- [Ext] dividendOf
- [Ext] distributeDividends (\$)
- [Ext] withdrawDividend #

+ DividendPayingToken (ERC20, DividendPayingTokenInterface, DividendPayingTokenOptionalInterface)

- [Pub] <Constructor> #
 - modifiers: ERC20
- [Ext] <Fallback> (\$)
- [Pub] distributeDividends (\$)
- [Pub] withdrawDividend #
- [Int] _withdrawDividendOfUser #
- [Pub] dividendOf
- [Pub] withdrawableDividendOf
- [Pub] withdrawnDividendOf
- [Pub] accumulativeDividendOf
- [Int] _transfer #
- [Int] _mint #
- [Int] _burn #

- [Int] _setBalance #
- + Context
 - [Int] _msgSender
 - [Int] _msgData
- + SSTARZ (ERC20, Ownable)
 - [Pub] <Constructor> #
 - modifiers: ERC20
 - [Ext] <Fallback> (\$)
 - [Pub] updateDividendTracker #
 - modifiers: onlyOwner
 - [Pub] updateUniswapV2Router #
 - modifiers: onlyOwner
 - [Pub] excludeFromFees #
 - modifiers: onlyOwner
 - [Pub] excludeMultipleAccountsFromFees #
 - modifiers: onlyOwner
 - [Pub] setAutomatedMarketMakerPair #
 - modifiers: onlyOwner
 - [Prv] _setAutomatedMarketMakerPair #
 - [Pub] updateGasForProcessing #
 - modifiers: onlyOwner
 - [Ext] updateClaimWait #
 - modifiers: onlyOwner
 - [Ext] getClaimWait
 - [Ext] getTotalDividendsDistributed
 - [Pub] isExcludedFromFees
 - [Pub] withdrawableDividendOf
 - [Pub] dividendTokenBalanceOf
 - [Ext] getAccountDividendsInfo
 - [Ext] getAccountDividendsInfoAtIndex
 - [Ext] processDividendTracker #
 - [Ext] claim #
 - [Ext] getLastProcessedIndex
 - [Ext] getNumberOfDividendTokenHolders
 - [Ext] setMaxSellTxAMount #
 - modifiers: onlyOwner
 - [Ext] setMarketingWallet #
 - modifiers: onlyOwner
 - [Ext] prepareForPresale #
 - modifiers: onlyOwner
 - [Ext] afterPreSale #
 - modifiers: onlyOwner
 - [Ext] setSwapEnabled #
 - modifiers: onlyOwner
 - [Int] _transfer #
 - [Prv] swapAndSendToMarketing #
 - modifiers: lockTheSwap
 - [Prv] addLiquidity #
 - [Prv] swapAndLiquify #
 - modifiers: lockTheSwap
 - [Prv] swapTokensForEth #
 - [Prv] swapAndSendDividends #
 - modifiers: lockTheSwap

+ SSTARZDividendTracker (DividendPayingToken, Ownable)

- [Pub] <Constructor> #
 - modifiers: DividendPayingToken
- [Int] _transfer #
- [Pub] withdrawDividend #
- [Ext] excludeFromDividends #
 - modifiers: onlyOwner
- [Ext] updateClaimWait #
 - modifiers: onlyOwner
- [Ext] getLastProcessedIndex
- [Ext] getNumberOfTokenHolders
- [Pub] getAccount
- [Pub] getAccountAtIndex
- [Prv] canAutoClaim
- [Ext] setBalance #
 - modifiers: onlyOwner
- [Pub] process #
- [Pub] processAccount #
 - modifiers: onlyOwner

(\$) = payable function

= non-constant function

Issues Checking Status

| Issue description | Checking status |
|--|-----------------|
| 1. Compiler errors. | Passed |
| 2. Race conditions and Reentrancy. Cross-function race conditions. | Passed |
| 3. Possible delays in data delivery. | Passed |
| 4. Oracle calls. | Passed |
| 5. Front running. | Passed |
| 6. Timestamp dependence. | Passed |
| 7. Integer Overflow and Underflow. | Passed |
| 8. DoS with Revert. | Passed |
| 9. DoS with block gas limit. | Passed |
| 10. Methods execution permissions. | Passed |
| 11. Economy model of the contract. | Passed |
| 12. The impact of the exchange rate on the logic. | Passed |
| 13. Private user data leaks. | Passed |
| 14. Malicious Event log. | Passed |
| 15. Scoping and Declarations. | Passed |
| 16. Uninitialized storage pointers. | Passed |
| 17. Arithmetic accuracy. | Passed |
| 18. Design Logic. | Passed |
| 19. Cross-function race conditions. | Passed |
| 20. Safe Open Zeppelin contracts implementation and usage. | Passed |
| 21. Fallback function security. | Passed |

Security Issues

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

✓ Low Severity Issues

No low severity issues found.

Notes:

- Dividend tracker may be changed. So that logic of setBalance and other functions could be another and not audited.
- In _withdrawDividendOfUser function gas value is constant, and could not be changed if needed.
- Buyback fee goes to marketing address.

Owner privileges (In the period when the owner is not renounced)

- Owner can change dividend tracker.
- Owner can change Uniswap router address.
- Owner can exclude from the fees.
- Owner can exclude and include addresses in automatedMarketMakerPairs array.
- Owner can change gas for processing.
- Owner can update claimWait value.
- Owner can change max sell transaction amount.
- Owner can change marketing wallet.
- Owner can enable before and after presale presets.
- Owner can enable and disable swap.
- Owner can exclude from dividends.

Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope. The further transfers and operations with the funds raise are not related to this particular contract.

Liquidity locking details NOT provided by the team.

TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.

