TechRate

AUDIT COMPANY

Smart Contract Security Audit

TechRate

July, 2021

Audit Details

Audited project

RisingSun

Deployer address

0x2aFBFcd1B8a87aa622c35973FE64427cEE97445E

Client contacts:

RisingSun team

Blockchain

Binance Smart Chain

Project website:

https://risingsun.finance

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 RisingSun to perform an audit of smart contracts:

https://bscscan.com/address/0x917841c010b3d86ED886F36F2C9807E07a2e3093#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 15.07.2021

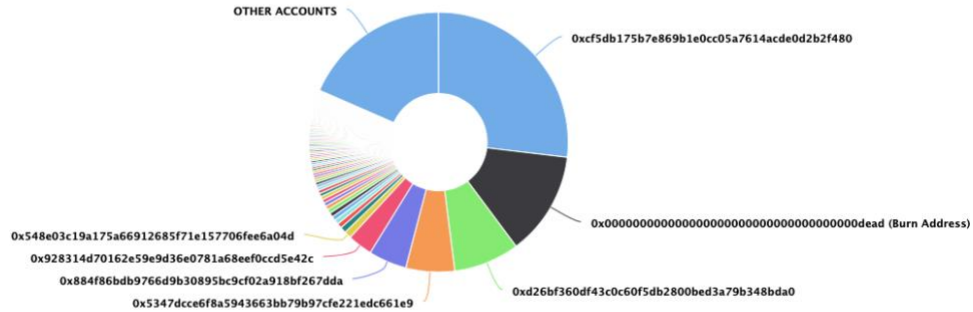|	
Contract name	RisingSun
Contract address	0x917841c010b3d86ED886F36F2C9807E07a2e3093
Total supply	10,000,000,000
Token ticker	RSUN
Decimals	9
Token holders	2,071
Transactions count	27,061
Top 100 holders dominance	81.53%
Swap threshold	2000000000000000
Marketing receiver	0x2afbfcd1b8a87aa622c35973fe64427cee97445e
Autoliquidity receiver	0x2afbfcd1b8a87aa622c35973fe64427cee97445e
Router	0x10ed43c718714eb63d5aa57b78b54704e256024e
Contract deployer address	0x2aFBFcd1B8a87aa622c35973FE64427cEE97445E
Contract's current owner address	0x884f86bdb9766d9b30895bc9cf02a918bf267dda

RisingSun Token Distribution

RisingSun Top 100 Token Holders
Source: BscScan.com

OTHER ACCOUNTS

0xcf5db175b7e869b1e0cc05a7614acde0d2b2f480

0x0000000000000000000000000000000000000dead (Burn Address)

0xd26bf360df43c0c60f5db2800bed3a79b348bda0

0x548e03c19a175a66912685f71e157706fee6a04d
0x928314d70162e59e9d36e0781a68eef0ccd5e42c
0x884f86bdb9766d9b30895bc9cf02a918bf267dda
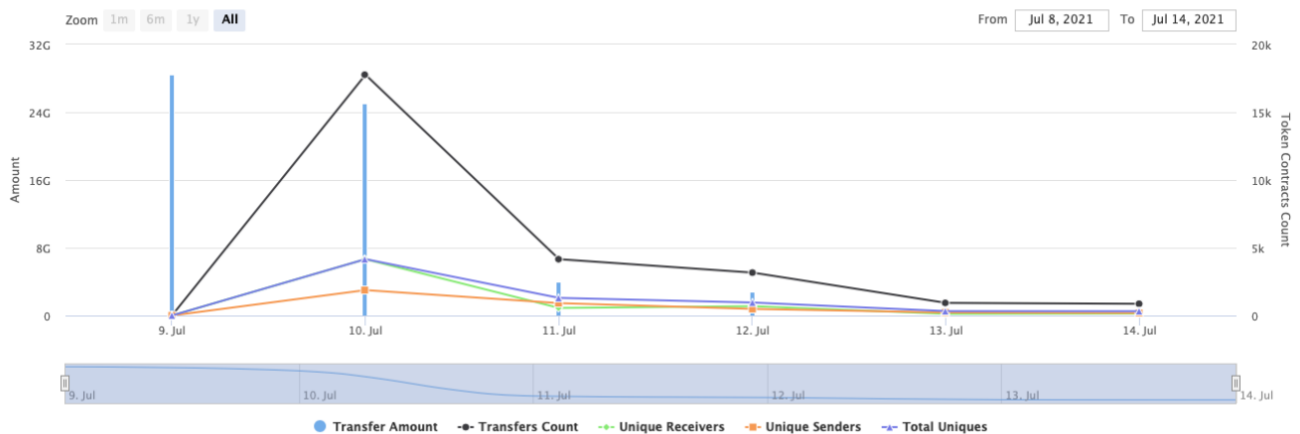0x5347dcce6f8a5943663bb79b97cfe221edc661e9

(A total of 8,153,416,199.04 tokens held by the top 100 accounts from the total supply of 10,000,000,000.00 token)

RisingSun Contract Interaction Details

Time Series: Token Contract Overview   Fri 9, Jul 2021 - Wed 14, Jul 2021

Token Contract 0x917841c010b3d86ED886F36F2C9807E07a2e3093 (RisingSun)
Source: BscScan.com

Zoom 1m 6m 1y **All**   From Jul 8, 2021   To Jul 14, 2021

● Transfer Amount   -●- Transfers Count   -●- Unique Receivers   -■- Unique Senders   -▲- Total Uniques

RisingSun Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	📄 0xcf5db175b7e869b1e0cc05a7614acde0d2b2f480	2,688,260,960.562354656	26.8826%
2	Burn Address	1,292,173,584.392910941	12.9217%
3	📄 0xd26bf360df43c0c60f5db2800bed3a79b348bda0	819,938,437.500000002	8.1994%
4	📄 0x5347dcce6f8a5943663bb79b97cfe221edc661e9	607,949,934.813599999	6.0795%
5	0x884f86bdb9766d9b30895bc9cf02a918bf267dda	475,576,311.5	4.7558%
6	📄 0x928314d70162e59e9d36e0781a68eef0ccd5e42c	308,675,584.711200001	3.0868%
7	0x548e03c19a175a66912685f71e157706fee6a04d	88,193,024.2032	0.8819%
8	0x5f95676b10104d45a6e829198675a26f3016256e	76,157,356.616527907	0.7616%
9	0xb8dd0a795a8ad7e0320da30417d8de76fa208e66	59,271,385.88568943	0.5927%
10	0xa67e5f88e0fd41819d8a450bbf3a4a2bf1773a9e	58,543,642.52440226	0.5854%

Contract functions details

+ [Lib] SafeMath
- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div

+ [Int] IBEP20
- **[Ext]** totalSupply
- **[Ext]** decimals
- **[Ext]** symbol
- **[Ext]** name
- **[Ext]** getOwner
- **[Ext]** balanceOf
- **[Ext]** transfer **#**
- **[Ext]** allowance
- **[Ext]** approve **#**
- **[Ext]** transferFrom **#**

+ [Int] IDEXFactory
- **[Ext]** createPair **#**

+ [Int] IDEXRouter
- **[Ext]** factory
- **[Ext]** WETH
- **[Ext]** addLiquidity **#**
- **[Ext]** addLiquidityETH **($)**
- **[Ext]** swapExactTokensForTokensSupportingFeeOnTransferTokens **#**
- **[Ext]** swapExactETHForTokensSupportingFeeOnTransferTokens **($)**
- **[Ext]** swapExactTokensForETHSupportingFeeOnTransferTokens **#**

+ RSunAuth
- **[Pub]** <Constructor> **#**
- **[Pub]** authorizeFor **#**
  - modifiers: authorizedFor
- **[Pub]** authorizeForMultiplePermissions **#**
  - modifiers: authorizedFor
- **[Pub]** unauthorizeFor **#**
  - modifiers: authorizedFor
- **[Pub]** unauthorizeForMultiplePermissions **#**
  - modifiers: authorizedFor
- **[Pub]** isOwner
- **[Pub]** isAuthorizedFor
- **[Pub]** isAuthorizedFor
- **[Pub]** transferOwnership **#**
  - modifiers: onlyOwner
- **[Pub]** getPermissionNameToIndex
- **[Pub]** getPermissionUnlockTime
- **[Pub]** isLocked
- **[Pub]** lockPermission **#**

- modifiers: authorizedFor
- **[Pub]** unlockPermission **#**

+ **[Int]** IDividendDistributor
  - **[Ext]** setDistributionCriteria **#**
  - **[Ext]** setShare **#**
  - **[Ext]** deposit **($)**
  - **[Ext]** process **#**
  - **[Ext]** claimDividend **#**

+ DividendDistributor (**IDividendDistributor**)
  - **[Pub]** <Constructor> **#**
  - **[Ext]** setDistributionCriteria **#**
    - modifiers: onlyToken
  - **[Ext]** setShare **#**
    - modifiers: onlyToken
  - **[Ext]** deposit **($)**
    - modifiers: onlyToken
  - **[Ext]** process **#**
    - modifiers: onlyToken
  - [Int] shouldDistribute
  - [Int] distributeDividend **#**
  - **[Ext]** claimDividend **#**
  - **[Pub]** getUnpaidEarnings
  - [Int] getCumulativeDividends
  - [Int] addShareholder **#**
  - [Int] removeShareholder **#**

+ RisingSun (**IBEP20, RSunAuth**)
  - **[Pub]** <Constructor> **#**
    - modifiers: RSunAuth
  - **[Ext]** <Fallback> **($)**
  - **[Ext]** totalSupply
  - **[Ext]** decimals
  - **[Ext]** symbol
  - **[Ext]** name
  - **[Ext]** getOwner
  - **[Pub]** balanceOf
  - **[Ext]** allowance
  - **[Pub]** approve **#**
  - **[Ext]** approveMax **#**
  - **[Ext]** transfer **#**
  - **[Ext]** transferFrom **#**
  - [Int] _transferFrom **#**
  - [Int] _basicTransfer **#**
  - [Int] checkTxLimit
  - [Int] shouldTakeFee
  - **[Pub]** getTotalFee
  - **[Pub]** getMultipliedFee
  - [Int] takeFee **#**
  - [Int] isSell
  - [Int] shouldSwapBack
  - [Int] swapBack **#**
    - modifiers: swapping
  - **[Ext]** triggerBuyback **#**

- modifiers: authorizedFor
   - **[Ext]** clearBuybackMultiplier **#**
          - modifiers: authorizedFor
   - [Int] buyTokens **#**
          - modifiers: swapping
   - **[Ext]** setBuybackMultiplierSettings **#**
          - modifiers: authorizedFor
   - [Int] launched
   - [Int] launch **#**
   - **[Ext]** setTxLimit **#**
          - modifiers: authorizedFor
   - **[Ext]** setIsDividendExempt **#**
          - modifiers: authorizedFor
   - **[Ext]** setIsFeeExempt **#**
          - modifiers: authorizedFor
   - **[Ext]** setIsTxLimitExempt **#**
          - modifiers: authorizedFor
   - **[Ext]** setFees **#**
          - modifiers: authorizedFor
   - **[Ext]** setFeeReceivers **#**
          - modifiers: authorizedFor
   - **[Ext]** setSwapBackSettings **#**
          - modifiers: authorizedFor
   - **[Ext]** setTargetLiquidity **#**
          - modifiers: authorizedFor
   - **[Ext]** setDistributionCriteria **#**
          - modifiers: authorizedFor
   - **[Ext]** setDistributorSettings **#**
          - modifiers: authorizedFor
   - **[Pub]** getCirculatingSupply
   - **[Pub]** getLiquidityBacking
   - **[Pub]** isOverLiquified
   - **[Ext]** claimDividend **#**
   - **[Ext]** addPair **#**
          - modifiers: authorizedFor
   - **[Ext]** removeLastPair **#**
          - modifiers: authorizedFor
   - **[Ext]** setFeesOnNormalTransfers **#**
          - modifiers: authorizedFor
   - **[Ext]** setIsBlacklisted **#**
          - modifiers: authorizedFor
   - **[Ext]** setLaunchedAt **#**
          - modifiers: authorizedFor

 ($) = 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.

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

- **Buyback permission can call triggerBuyback that's initiate buyback.**
- **Buyback permission can clean buyback multiplier.**
- **AdjustContractVariables permission can change buyback multiplier settings.**
- **AdjustContractVariables permission can change the maximum transaction amount.**
- **ExcludeInclude permission can include in and exclude from dividends.**
- **ExcludeInclude permission can include in and exclude from fee and transaction amount.**
- **AdjustContractVariables permission can change fees.**
- **AdjustContractVariables permission can change fee receivers.**
- **AdjustContractVariables permission can change swap threshold and disable/enable swap.**
- **AdjustContractVariables permission can change target liquidity values.**
- **AdjustContractVariables permission can change distribution criteria.**
- **AdjustContractVariables permission can add and remove pair.**
- **AdjustContractVariables permission can change feesOnNormalTransfers value.**
- **Blacklist permission can blacklist addresses.**
- **AdjustContractVariables permission can set launched at value.**

Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details provided by the team:
0xCF5DB175b7E869B1E0cc05A7614aCdE0d2B2F480
https://dxsale.app/app/v2_9/dxlockview?id=764&add=0&type=lpdefi&chain=BSC

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.