TechRate

AUDIT COMPANY

Smart Contract Security Audit

Audit Details

Audited project

HerityNetwork

Deployer address

0x3dc8bb245e5ad46cf050268c29f7bbc5407ad1ba

Client contacts:

HerityNetwork 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 HerityNetwork to perform an audit of smart contracts:
https://bscscan.com/address/0x8c18ffd66d943c9b0ad3dc40e2d64638f1e6e1ab#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 17.12.2021

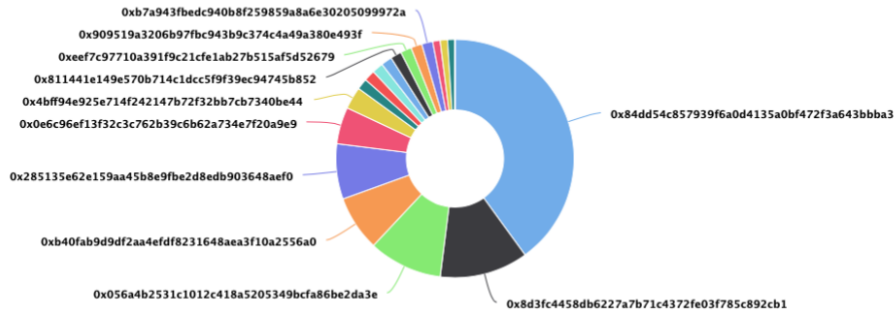|	
Contract name	HerityNetwork
Contract address	0x8c18ffD66d943C9B0AD3DC40E2D64638F1e6e1ab
Total supply	100,000,000
Token ticker	HER
Decimals	9
Token holders	18
Transactions count	19
Top 100 holders dominance	100.00%
Liquidity fee	8
Ong address	0xc877ae16e6d294c1ac3217121b997658eb866b8d
Buyback address	0x1a5f261fe71852fae11ec4155f0f541a88c7b5d2
Contract deployer address	0x3dc8bb245e5ad46cf050268c29f7bbc5407ad1ba
Contract's current owner address	0x3dc8bb245e5ad46cf050268c29f7bbc5407ad1ba

HerityNetwork Token Distribution

HerityNetwork Top 100 Token Holders
Source: BscScan.com

0xb7a943fbedc940b8f259859a8a6e30205099972a
0x909519a3206b97fbc943b9c374c4a49a380e493f
0xeef7c97710a391f9c21cfe1ab27b515af5d52679
0x811441e149e570b714c1dcc5f9f39ec94745b852
0x4bff94e925e714f242147b72f32bb7cb7340be44
0x0e6c96ef13f32c3c762b39c6b62a734e7f20a9e9
0x285135e62e159aa45b8e9fbe2d8edb903648aef0
0xb40fab9d9df2aa4efdf8231648aea3f10a2556a0
0x056a4b2531c1012c418a5205349bcfa86be2da3e

0x84dd54c857939f6a0d4135a0bf472f3a643bbba3
0x8d3fc4458db6227a7b71c4372fe03f785c892cb1

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

HerityNetwork Contract Interaction Details

Token Contract 0x8c18ffd66d943c9b0ad3dc40e2d64638f1e6e1ab (HerityNetwork)
Source: BscScan.com

Zoom 1m 6m 1y All   From Dec 14, 2021 To Dec 15, 2021

Amount

240M
180M
120M
60M
0

15. Dec

Token Contracts Count

40
30
20
10
0

15. Dec

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

HerityNetwork Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	0x84dd54c857939f6a0d4135a0bf472f3a643bbba3	40,000,000	40.0000%
2	0x8d3fc4458db6227a7b71c4372fe03f785c892cb1	12,000,000	12.0000%
3	0x056a4b2531c1012c418a5205349bcfa86be2da3e	10,000,000	10.0000%
4	0xb40fab9d9df2aa4efdf8231648aea3f10a2556a0	7,500,000	7.5000%
5	0x285135e62e159aa45b8e9fbe2d8edb903648aef0	7,500,000	7.5000%
6	0x0e6c96ef13f32c3c762b39c6b62a734e7f20a9e9	5,000,000	5.0000%
7	0x4bff94e925e714f242147b72f32bb7cb7340be44	3,000,000	3.0000%
8	0x29258cf87d728cc5fd2d05e2c04945f22f96e741	1,500,000	1.5000%
9	0xcefc0e3aeaab25f232a3145eec822a12c0062969	1,500,000	1.5000%
10	0x820c8d46664c86585963cd78f0a092de7df6915f	1,500,000	1.5000%

Contract functions details

+ Context
  - [Int] _msgSender

+ [Int] IERC20
  - **[Ext]** totalSupply
  - **[Ext]** balanceOf
  - **[Ext]** transfer **#**
  - **[Ext]** allowance
  - **[Ext]** approve **#**
  - **[Ext]** transferFrom **#**

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

+ Ownable (Context)
  - **[Pub]** <Constructor> **#**
  - **[Pub]** owner
  - **[Pub]** renounceOwnership **#**
    - modifiers: onlyOwner
  - **[Pub]** transferOwnership **#**
    - modifiers: onlyOwner

+ [Int] IUniswapV2Factory
  - **[Ext]** createPair **#**

+ [Int] IUniswapV2Router02
  - **[Ext]** swapExactTokensForETHSupportingFeeOnTransferTokens **#**
  - **[Ext]** factory
  - **[Ext]** WETH
  - **[Ext]** addLiquidityETH **($)**

+ HerityNetwork (Context, IERC20, Ownable)
  - **[Pub]** <Constructor> **#**
  - **[Pub]** name
  - **[Pub]** symbol
  - **[Pub]** decimals
  - **[Pub]** totalSupply
  - **[Pub]** balanceOf
  - **[Pub]** humanBalanceOf
  - **[Pub]** transfer **#**
  - **[Pub]** allowance
  - **[Pub]** approve **#**
  - **[Pub]** transferFrom **#**
  - **[Ext]** setIsExcludedFromFee **#**
    - modifiers: onlyOwner
  - **[Pub]** isExcludedFromFee

- **[Ext]** setBuybackAddress **#**
  - modifiers: onlyOwner
- **[Ext]** setOngAddress **#**
  - modifiers: onlyOwner
- **[Prv]** tokenFromReflection
- **[Prv]** removeAllFee **#**
- **[Prv]** restoreAllFee **#**
- **[Ext]** setRemoveAllFee **#**
  - modifiers: onlyOwner
- **[Ext]** setRestoreAllFee **#**
  - modifiers: onlyOwner
- **[Prv]** _approve **#**
- **[Prv]** _transfer **#**
- **[Prv]** swapTokensForEth **#**
  - modifiers: lockTheSwap
- **[Prv]** _tokenTransfer **#**
- **[Prv]** _transferStandard **#**
- **[Prv]** _calculateReflectTransfer **#**
- **[Ext]** <Fallback> **($)**
- **[Prv]** _getRate
- **[Prv]** _getCurrentSupply
- **[Ext]** setMaxTxPercent **#**
  - modifiers: onlyOwner
- **[Ext]** setNumTokensToAddToLiquidity **#**
  - modifiers: onlyOwner
- **[Ext]** manualSwap **#**
  - modifiers: onlyOwner
- **[Ext]** setSwapAndLiquifyEnabled **#**
  - modifiers: onlyOwner
- **[Ext]** withdrawResidualBnb **#**
  - modifiers: onlyOwner
- **[Ext]** transferResidualErc20 **#**
  - 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.

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

- Owner can exclude from the fee.
- Owner can change buyback and ong addresses.
- Owner can remove and restore fees.
- Owner can change the maximum transaction amount.
- Owner can change _numTokensSellToAddToLiquidity value.
- Owner can manually swap.
- Owner can enable/disable swap and liquify.
- Owner can withdraw contract tokens and BNBs.

Conclusion

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

Liquidity locking details are 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.