Techrate1 Techrate

TechRate

AUDIT COMPANY

Smart Contract Security Audit

TechRate

November, 2021

Audit Details

Audited project

ShiraINU

Deployer address

0x286e02828a91da6fc2bdae7a1ffa9c66887aa41e

Client contacts:

ShiraINU team

Blockchain

Ethereum

Project website:

Shirainu.io

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.

DISCLAIMER: By reading this report or any part of it, you agree to the terms of this disclaimer. If you do not agree to the terms, then please immediately cease reading this report, and delete and destroy any and all copies of this report downloaded and/or printed by you. This report is provided for information purposes only and on a non-reliance basis, and does not constitute investment advice. No one shall have any right to rely on the report or its contents, and TechRate and its affiliates (including holding companies, shareholders, subsidiaries, employees, directors, officers and other representatives) (TechRate) owe no duty of care towards you or any other person, nor does TechRate make any warranty or representation to any person on the accuracy or completeness of the report. The report is provided "as is", without any conditions, warranties or other terms of any kind except as set out in this disclaimer, and TechRate hereby excludes all representations, warranties, conditions and other terms (including, without limitation, the warranties implied by law of satisfactory quality, fitness for purpose and the use of reasonable care and skill) which, but for this clause, might have effect in relation to the report. Except and only to the extent that it is prohibited by law, TechRate hereby excludes all liability and responsibility, and neither you nor any other person shall have any claim against TechRate, for any amount or kind of loss or damage that may result to you or any other person (including without limitation, any direct, indirect, special, punitive, consequential or pure economic loss or damages, or any loss of income, profits, goodwill, data, contracts, use of money, or business interruption, and whether in delict, tort (including without limitation negligence), contract, breach of statutory duty, misrepresentation (whether innocent or negligent) or otherwise under any claim of any nature whatsoever in any jurisdiction) in any way arising from or connected with this report and the use, inability to use or the results of use of this report, and any reliance on this report.

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 ShiraINU to perform an audit of smart contracts:
https://etherscan.io/address/0x04a5198063e45d84b1999516d3228167146417a6#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.

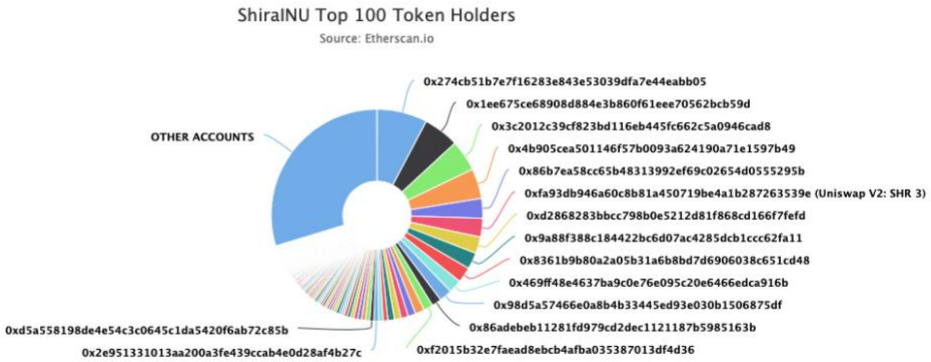
Contracts Details

Token contract details for 29.11.2021

Contract name	ShiraINU
Contract address	0x04A5198063e45D84B1999516D3228167146417A6
Total supply	1,000,000,000,000,000,000
Token ticker	SHR
Decimals	9
Token holders	2,942
Transactions count	7,356
Top 100 holders dominance	70.31%
Contract deployer address	0x286e02828a91da6fc2bdae7a1ffa9c66887aa41e
Contract's current owner address	0x0000000000000000000000000000000000000000

ShiraINU Token Distribution

The top 100 holders collectively own 70.31% (703,114,850,891,639,000.00 Tokens) of ShiraINU | Token Total Supply: 1,000,000,000,000,000,000.00 Token | Total Token Holders: 2,942

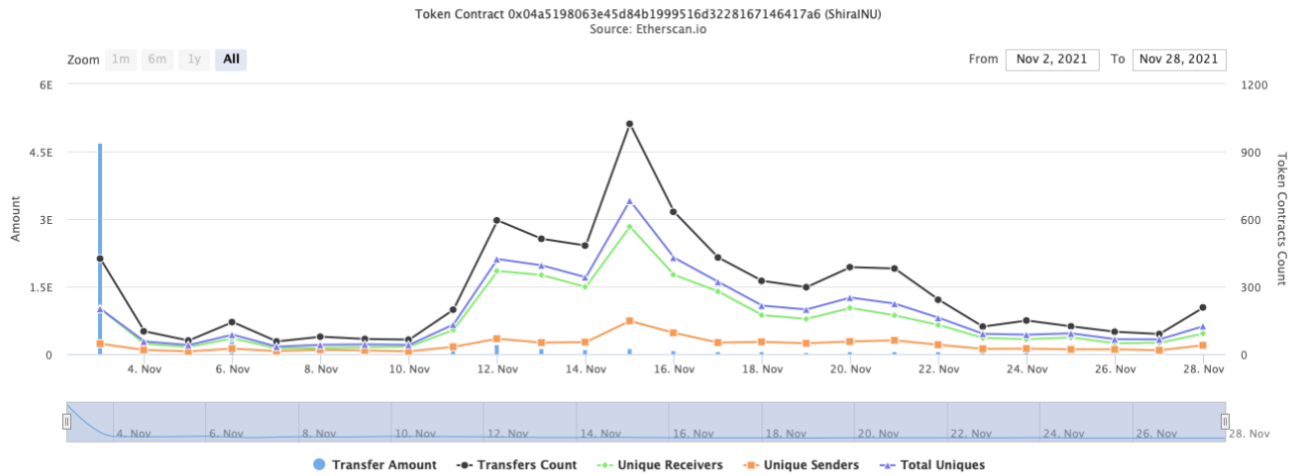


(A total of 703,114,850,891,639,000.00 tokens held by the top 100 accounts from the total supply of 1,000,000,000,000,000,000.00 token)

ShiraINU Token Interaction details

Time Series: Token Contract Overview

Wed 3, Nov 2021 - Sun 28, Nov 2021



ShiraINU Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	0x274cb51b7e7f16283e843e53039dfa7e44eabb05	77,080,590,481,280,700.970669607	7.7081%
2	0x1ee675ce68908d884e3b860f61eee70562bcb59d	54,306,336,783,325,300.64407712	5.4306%
3	0x3c2012c39cf823bd116eb445fc662c5a0946cad8	47,416,562,331,711,500.562085828	4.7417%
4	0x4b905cea501146f57b0093a624190a71e1597b49	45,837,975,275,869,100.591934511	4.5838%
5	0x86b7ea58cc65b48313992ef69c02654d0555295b	30,156,462,107,096,300.248473559	3.0156%
6	Uniswap V2: SHR 3	28,590,893,003,685,800.585290952	2.8591%
7	0xd2868283bbcc798b0e5212d81f868cd166f7fefd	25,339,565,424,817,700.564499699	2.5340%
8	0x9a88f388c184422bc6d07ac4285dcb1ccc62fa11	25,189,517,939,799,300.940620745	2.5190%
9	0x8361b9b80a2a05b31a6b8bd7d6906038c651cd48	23,594,479,795,993,500.847599314	2.3594%
10	0x469ff48e4637ba9c0e76e095c20e6466edca916b	20,357,763,320,512,300.642727061	2.0358%

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

+ [Int] IUniswapV2Factory
  - [Ext] createPair #

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

+ Shirainu (Context, IERC20, Ownable)
  - [Pub] <Constructor> #
  - [Pub] name
  - [Pub] symbol
  - [Pub] decimals
  - [Pub] totalSupply
  - [Pub] balanceOf
  - [Pub] transfer #
  - [Pub] allowance
  - [Pub] approve #
  - [Pub] transferFrom #
  - [Ext] setCooldownEnabled #
    - modifiers: onlyOwner
  - [Prv] tokenFromReflection
  - [Prv] _approve #
  - [Prv] _transfer #
  - [Prv] swapTokensForEth #

    - modifiers: lockTheSwap
  - [Prv] sendETHToFee #
  - [Ext] openTrading #
    - modifiers: onlyOwner
  - [Pub] setBots #
    - modifiers: onlyOwner
  - [Pub] delBot #
    - modifiers: onlyOwner
  - [Prv] _tokenTransfer #
  - [Prv] _transferStandard #
  - [Prv] _takeTeam #
  - [Prv] _reflectFee #
  - [Ext] <Fallback> ($)
  - [Ext] manualswap #
  - [Ext] manualsend #
  - [Prv] _getValues
  - [Prv] _getTValues
  - [Prv] _getRValues
  - [Prv] _getRate
  - [Prv] _getCurrentSupply

($) = 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 enable cooldown (user to user trading with time offset).

```
function setCooldownEnabled(bool onoff) external onlyOwner() {
    cooldownEnabled = onoff;
}
```

- Owner can open swap trading.

```
function openTrading() external onlyOwner() {
    require(!tradingOpen,"trading is already open");
    IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(0x7a250d5630B4cF539739dF2C5dAcb4c659F2488D);
    uniswapV2Router = _uniswapV2Router;
    _approve(address(this), address(uniswapV2Router), _tTotal);
    uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory()).createPair(address(this), _uniswapV2Router.WETH());
    uniswapV2Router.addLiquidityETH{value: address(this).balance}(address(this),balanceOf(address(this)),0,0,owner(),block.timestamp);
    swapEnabled = true;
    cooldownEnabled = true;
    _maxTxAmount = 5000000000000000 * 10**9;
    tradingOpen = true;
    IERC20(uniswapV2Pair).approve(address(uniswapV2Router), type(uint).max);
}
```

- Owner can add and remove bots (no transferring between this addresses).

```
function setBots(address[] memory bots_) public onlyOwner {
    for (uint i = 0; i < bots_.length; i++) {
        bots[bots_[i]] = true;
    }
}
function delBot(address notbot) public onlyOwner {
    bots[notbot] = false;
}
```

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 are provided by the team:
https://www.team.finance/view-coin/0x04A5198063e45D84B1999516D3228167146417A6?name=ShiraINU&symbol=SHR

Ownership renounce details are provided by the team:
https://etherscan.io/tx/0x65afe753fbd55a0a0dfd42a582f7db4b76dac106a78ac47e3f8b5028cfaad71e

---

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.