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AUDIT COMPANY

# Smart Contract Security Audit

TechRate

January, 2022

# Audit Details

Audited project

**MetaKombat**

Deployer address

**0x8c1384d4101b06d6d2422fa607ac9f91adbf5937**

Client contacts:

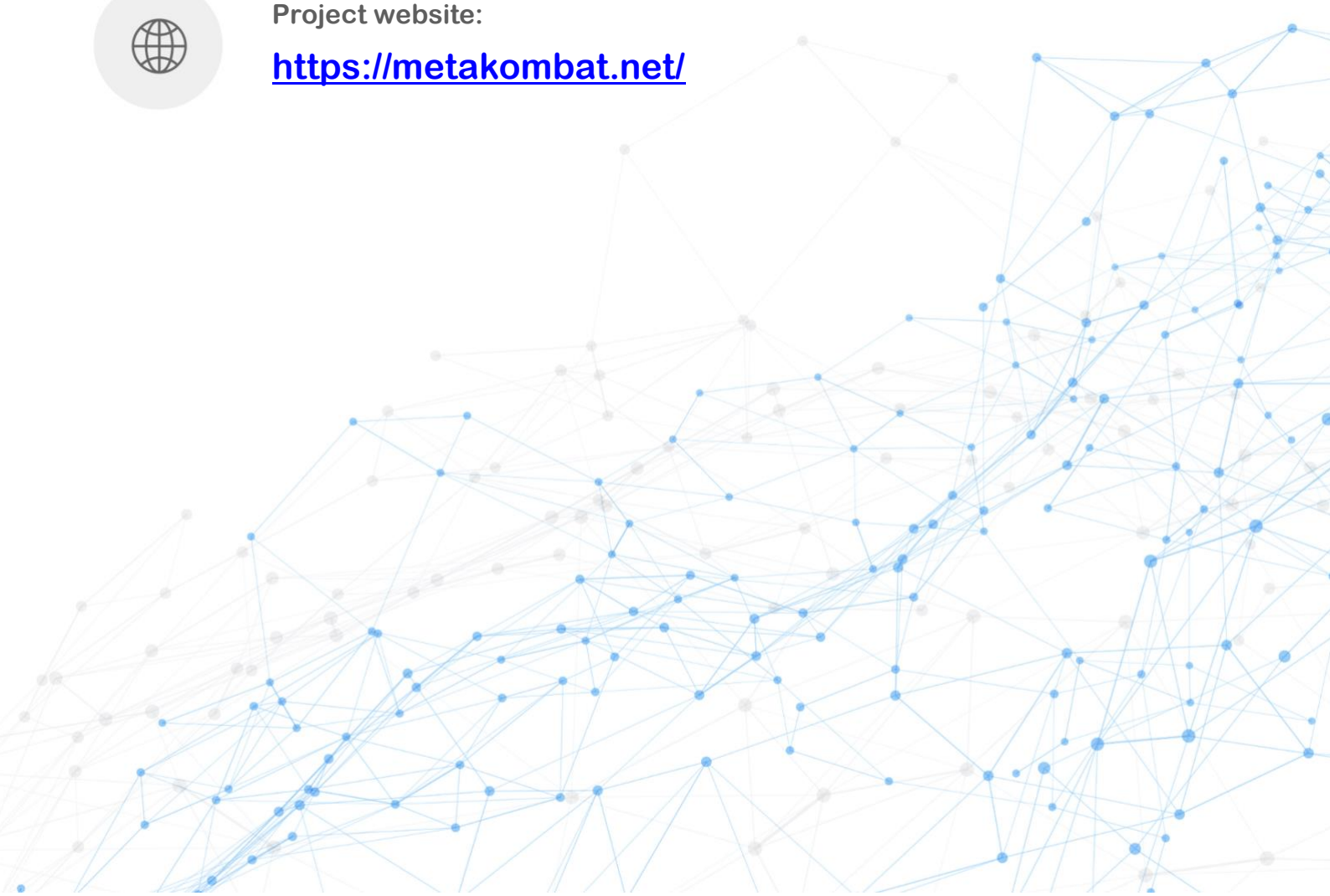
**MetaKombat team**

Blockchain

**Binance Smart Chain**

Project website:

**https://metakombat.net/**



# 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 MetaKombat to perform an audit of smart contracts:

https://bscscan.com/address/0x4F814F93E59242D96595844eb3882BbEE0398F7C#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 06.01.2022

| | |
|---|---|
| Contract name | MetaKombat |
| Contract address | 0x4F814F93E59242D96595844eb3882BbEE0398F7C |
| Total supply | 100,000,000,000 |
| Token ticker | Kombat |
| Decimals | 18 |
| Token holders | 100.00% |
| Transactions count | 1 |
| Top 100 holders dominance | 1 |
| Liquidity ratio | 2 |
| Buy / Sell / Transfer fee rate | 1000 |
| Total ratio | 10 |
| Lp pair | 0xa5a11691a19fefced7ee67de2e9938aba20179b7 |
| Contract deployer address | 0x8c1384d4101b06d6d2422fa607ac9f91adbf5937 |
| Contract's current owner address | 0x8c1384d4101b06d6d2422fa607ac9f91adbf5937 |

# MetaKombat Token Distribution

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

Token Total Supply: 100,000,000,000.00 Token | Total Token Holders: 1


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

# MetaKombat Top 10 Token Holders

| Rank | Address | Quantity (Token) | Percent |
|---|---|---|---|
| 1. | 0x8c1384d4101b06d6d2422fa607ac9f91adbf5937 | 100,000,000,000 | 100.0000% |

# Contract functions details

+ Context
  - [Int] _msgSender
  - [Int] _msgData

+ [Int] IERC20
  - [Ext] totalSupply
  - [Ext] decimals
  - [Ext] symbol
  - [Ext] name
  - [Ext] getOwner
  - [Ext] balanceOf
  - [Ext] transfer #
  - [Ext] allowance
  - [Ext] approve #
  - [Ext] transferFrom #

+ [Int] IFactoryV2
  - [Ext] getPair
  - [Ext] createPair #

+ [Int] IV2Pair
  - [Ext] factory
  - [Ext] getReserves

+ [Int] IRouter01
  - [Ext] factory
  - [Ext] WETH
  - [Ext] addLiquidityETH ($)
  - [Ext] quote
  - [Ext] getAmountOut
  - [Ext] getAmountIn
  - [Ext] getAmountsOut
  - [Ext] getAmountsIn

+ [Int] IRouter02 (IRouter01)
  - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
  - [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens ($)

+ [Int] AntiSnipe
  - [Ext] checkUser #
  - [Ext] setLaunch #
  - [Ext] setLpPair #
  - [Ext] setProtections #
  - [Ext] setGasPriceLimit #
  - [Ext] removeSniper #
  - [Ext] getSniperAmt
  - [Ext] removeBlacklisted #
  - [Ext] isBlacklisted
  - [Ext] transfer #

+ MetaKombat (Context, IERC20)

- [Pub] <Constructor> ($)
- [Ext] <Fallback> ($)
- [Pub] owner
- [Ext] transferOwner #
  - modifiers: onlyOwner
- [Pub] renounceOwnership #
  - modifiers: onlyOwner
- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] allowance
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] approve #
- [Prv] _approve #
- [Pub] approveContractContingency #
  - modifiers: onlyOwner
- [Ext] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Pub] setNewRouter #
  - modifiers: onlyOwner
- [Ext] setLpPair #
  - modifiers: onlyOwner
- [Ext] changeRouterContingency #
  - modifiers: onlyOwner
- [Pub] getCirculatingSupply
- [Pub] isExcludedFromFees
- [Pub] setExcludedFromFees #
  - modifiers: onlyOwner
- [Ext] setInitializer #
  - modifiers: onlyOwner
- [Ext] removeBlacklisted #
  - modifiers: onlyOwner
- [Pub] isBlacklisted
- [Pub] getSniperAmt
- [Ext] removeSniper #
  - modifiers: onlyOwner
- [Ext] setProtectionSettings #
  - modifiers: onlyOwner
- [Ext] setGasPriceLimit #
  - modifiers: onlyOwner
- [Ext] setTaxes #
  - modifiers: onlyOwner
- [Ext] setRatios #
  - modifiers: onlyOwner
- [Ext] setMaxTxPercent #
  - modifiers: onlyOwner
- [Ext] setMaxWalletSize #
  - modifiers: onlyOwner
- [Pub] getMaxTX
- [Pub] getMaxWallet
- [Ext] setSwapSettings #

    - modifiers: onlyOwner
  - [Ext] setWallets #
    - modifiers: onlyOwner
  - [Pub] setContractSwapEnabled #
    - modifiers: onlyOwner
  - [Ext] excludePresaleAddresses #
    - modifiers: onlyOwner
  - [Prv] _hasLimits
  - [Int] _transfer #
  - [Prv] contractSwap #
    - modifiers: lockTheSwap
  - [Prv] _checkLiquidityAdd #
  - [Pub] enableTrading #
    - modifiers: onlyOwner
  - [Ext] sweepContingency #
    - modifiers: onlyOwner
  - [Ext] multiSendTokens #
  - [Ext] multiSendPercents #
  - [Prv] _finalizeTransfer #
  - [Int] takeTaxes #

($) = 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. | Low issues |
| 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. | Low issues |
| 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

### 1. Out of gas

**Issue:**

- The function multiSendTokens() and multiSendPercents() uses the loop to multitransfer. Function will be aborted with OUT_OF_GAS exception if there will be a long addresses list.

**Recommendation**:
Check that the array length is not too big.

### 2. Non fixed solidity version

**Issue:**

- Solidity version is not fixed. Contract use operators, that works different way on different solidity versions.

```
// SPDX-License-Identifier: MIT
pragma solidity >=0.6.0 <0.9.0;
```

**Recommendation**:
Fix solidity version to one or reduce versions range.

## Notes:

- Liquidity adding in wrong proportion.

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

- Owner can transfer whole ownership.
- Owner can change Uniswap router address.
- Owner can include in LpPair array.
- Owner can exclude from the fee.
- Owner can change antisnipe address.
- Owner can remove sniper addresses.
- Owner can change protection settings.
- Owner can change antisnipe gas limit.
- Owner can change fees and ratios.
- Owner can change max wallet size and max transaction amount.
- Owner can change swapThreshold, swapInterval and swapAmount.
- Owner can change marketing, liquidity and development address.
- Owner can enable/disable contractSwapEnabled.
- Owner can add addresses in multiple exclusions.
- Owner can enable trading.
- Owner can withdraw contract ETHs.

# Conclusion

**Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope. Contract contain interfaces that is not audited, some functions may work different ways.**

**Liquidity locking details NOT provided by the team.**

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***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.***