



**NOVOS**

## **KYC & AUDIT.**

Novos is an agency specializing in blockchain technology solutions, Audits, KYC / Doxx.



# CERTIFICATE OF COMPLIANCE

Smart Contract Audit by NOVOS



Mizuchi Token

Audit Passed

09/11/2022

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# Audit Summary

This report has been prepared for Mizuchi Token on the BSC network. Novos provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Ensuring contract logic meets the specifications and intentions of the client without exposing the user's funds to risk.
- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Thorough line-by-line manual review of the entire codebase by industry experts.



## Project Overview

Parameter	Result
Address	0x8468c89fa907D94e41f430099c1e0590B694f1E6
Name	MIZUCHI
Token Tracker	Mizuchi
Decimals	9
Supply	82,286.382867
Platform	BSC
Compiler	v0.8.11+commit.d7f03943
Optimization	No with 200 runs
Other Settings:	default evmVersion
Language	Solidity
Codebase	<a href="https://bscscan.com/address/0x8468c89fa907d94e41f430099c1e0590b694f1e6#code">https://bscscan.com/address/0x8468c89fa907d94e41f430099c1e0590b694f1e6#code</a>
Url	@MizuchiBSC

## Main Contract Assessed

Name	Contract	Live
<b>MIZUCHI</b>	0x8468c89fa907D94e41f430099c1e0590B694f1E6	Yes



# Smart Contract Vulnerability Checks

Vulnerability	Automatic Scan	Manual Scan	Result
❖ Unencrypted Private Data On-Chain	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Code With No Effects	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Message call with hardcoded gas amount	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Hash Collisions With Multiple Variable Length Arguments	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Unexpected Ether balance	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Presence of unused variables	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Right-To-Left-Override control character (U+202E)	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Typographical Error	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ DoS With Block Gas Limit	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Arbitrary Jump with Function Type Variable	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Insufficient Gas Griefing	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Incorrect Inheritance Order	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Write to Arbitrary Storage Location	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Requirement Violation	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Missing Protection against Signature Replay Attacks	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Weak Sources of Randomness from Chain Attributes	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>





# Smart Contract Vulnerability Checks

Vulnerability	Automatic Scan	Manual Scan	Result
❖ Authorization through tx.origin	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Delegatecall to Untrusted Callee	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Use of Deprecated Solidity Functions	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Assert Violation	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Reentrancy	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Unprotected SELFDESTRUCT Instruction	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Unprotected Ether Withdrawal	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Unchecked Call Return Value	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Outdated Compiler Version	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Integer Overflow and Underflow	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>
❖ Function Default Visibility	✓ Complete	✓ Complete	✓ <b>Low / No Risk</b>





# Contract Ownership

The contract ownership of Mizuchi Tokens is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

01

The current owner is the address `0x7fedca1ff06f5d6675c1d34240a03f3e57a1e0b5` which can be viewed from: [HERE](#)

02

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner wallet is compromised this privileges could be exploited.

03

We recommend the team to renounce ownership at the right timing if possible, or gradually migrate to a timelock with governing functionalities in respect of transparency and safety considerations.



# Important Notes To The Users:



01

Submitted for verification at BscScan.com on 2022-09-09

02

```
function decreaseAllowance(address spender,
uint256 subtractedValue) public virtual returns
(bool) {    uint256 currentAllowance =
_allowances[_msgSender()][spender];
require(currentAllowance >= subtractedValue,
"ERC20: decreased allowance below zero");
```

03

```
IUniswapV2Router02 public immutable
uniswapV2Router;    address public immutable
uniswapV2Pair;    address public constant
deadAddress = address(0xdead);
```

04

```
address private MarketingWallet;    address
public _Deployer;
```

05

```
bool public limitsInEffect = true;    bool public
tradingActive = false;
```

06

```
Anti-bot and anti-whale mappings and
variables    mapping(address => uint256) private
_holderLastTransferTimestamp; // to hold last
Transfers temporarily during launch    bool
public transferDelayEnabled = true;
```

07

```
exlcude from fees and max transaction amount
mapping (address => bool) private
_isExcludedFromFees;    mapping (address =>
bool) public
_isExcludedMaxTransactionAmount;
```

08

```
store addresses that a automatic market maker
pairs. Any transfer *to* these addresses //
could be subject to a maximum transfer
amount    mapping (address => bool) public
automatedMarketMakerPairs;
```

09

```
uint256 _buyMarketingFee = 5;
uint256 _buyBurnFee = 5;
```

10

```
uint256 _sellBurnFee = 5;
uint256 _sellMarketingFee = 5;
```

11

```
maxTransactionAmount = totalSupply * 2 / 100; //
2% maxTransactionAmountTxn    maxWallet =
totalSupply * 3 / 100; // 3% maxWallet
swapTokensAtAmount = totalSupply * 5 / 10000;
// 0.05% swap wallet
```

# Technical Findings Summary

## Classification of Issues

### Total

What you should pay attention to

**Medium**

Bugs or issues with that may be subject to exploit, though their impact is somewhat limited. Issues under this classification are recommended to be fixed as soon as possible.

**Info**

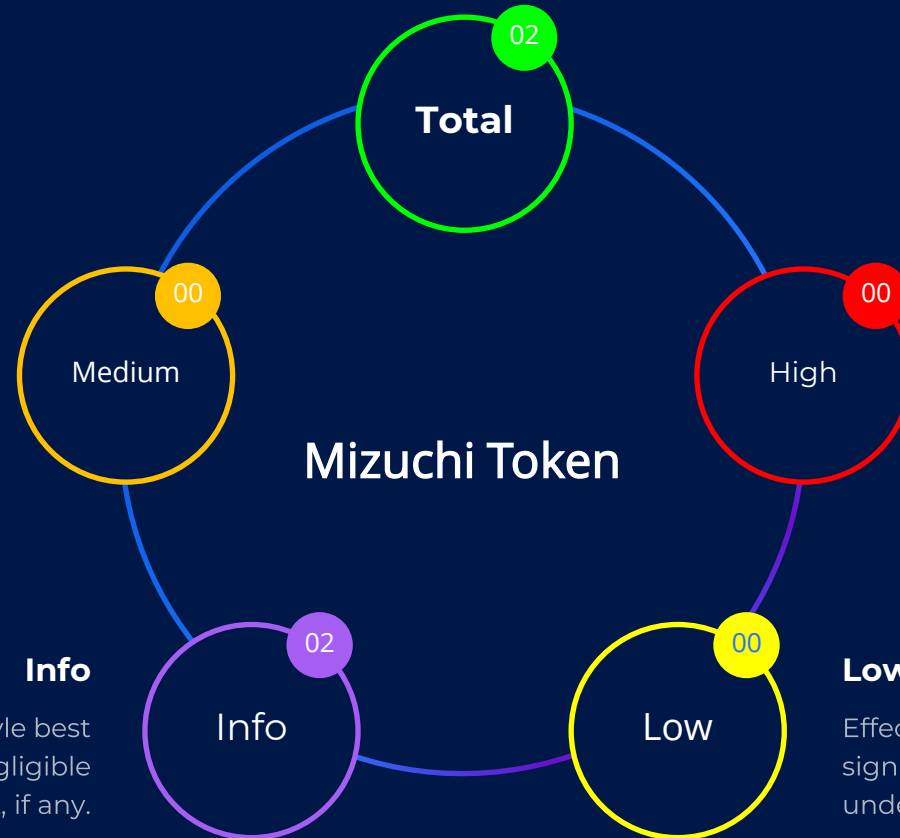
Consistency, syntax or style best practices. Generally pose a negligible level of risk, if any.

**Low**

Effects are minimal in isolation and do not pose a significant danger to the project or its users. Issues under this classification are recommended to be fixed nonetheless.

**High**

Exploits, vulnerabilities or errors that will certainly or probabilistically lead towards loss of funds, control, or impairment of the contract and its functions. Issues under this classification are recommended to be fixed with utmost urgency



# Findings

Public function that could be declared external



ID	Severity	Contract	Function
01	Informational	Mizuchi	Functions: size, getKeyAtIndex, getIndexOfKey

## Description

Gas Optimization. Public function that could be declared external

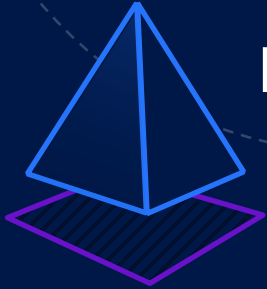
## Recommendation

Public functions that are never called by the contract should be declared external to save gas.



# Findings

## Missing events arithmetic



ID	Severity	Contract	Function
02	Informational	Mizuchi	Missing events for setWalletBalance, setMaxBuyTransaction, setMaxSellTransaction, setSwapTokensAtAmount, setSellTransactionMultiplier

### Description

Functions that change critical arithmetic parameters should emit an event.

### Recommendation

Emit corresponding events for critical parameter changes.

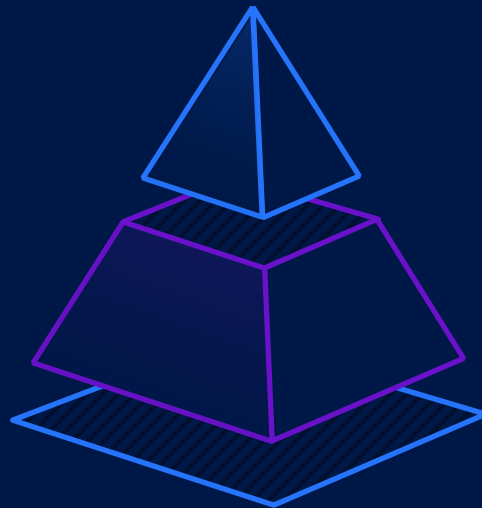


# Privileged Functions (onlyOwner & Others)

Function Name	Parameters	Visibility
✓ renounceOwnership	<ul style="list-style-type: none"><li>▪ none</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ transferOwnership	<ul style="list-style-type: none"><li>▪ address newOwner</li></ul>	<ul style="list-style-type: none"><li>▪ <b>public</b></li></ul>
✓ prepareForPartnerOrExchangeListing	<ul style="list-style-type: none"><li>▪ address_partnerOrExchangeAddress</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setWalletBalance	<ul style="list-style-type: none"><li>▪ uint256_maxWalletBalance</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setMaxBuyTransaction	<ul style="list-style-type: none"><li>▪ uint256_maxTxn</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setMaxSellTransaction	<ul style="list-style-type: none"><li>▪ uint256_maxTxn</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ updateBusdDividendToken	<ul style="list-style-type: none"><li>▪ address_newContract</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ updateMarketingWallet	<ul style="list-style-type: none"><li>▪ address_newWallet</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setSwapTokensAtAmount	<ul style="list-style-type: none"><li>▪ uint256_swapAmount</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setSellTransactionMultiplier	<ul style="list-style-type: none"><li>▪ uint256_multiplier</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setTradingIsEnabled	<ul style="list-style-type: none"><li>▪ none</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setBusdDividendEnabled	<ul style="list-style-type: none"><li>▪ bool_enabled</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setMarketingEnabled	<ul style="list-style-type: none"><li>▪ bool_enabled</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ setSwapAndLiquifyEnabled	<ul style="list-style-type: none"><li>▪ bool_enabled</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ updatebusdDividendTracker	<ul style="list-style-type: none"><li>▪ address newAddress</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>
✓ updateUniswapV2Router	<ul style="list-style-type: none"><li>▪ address newAddress</li></ul>	<ul style="list-style-type: none"><li>▪ <b>external</b></li></ul>

# Privileged Functions (onlyOwner & Others)

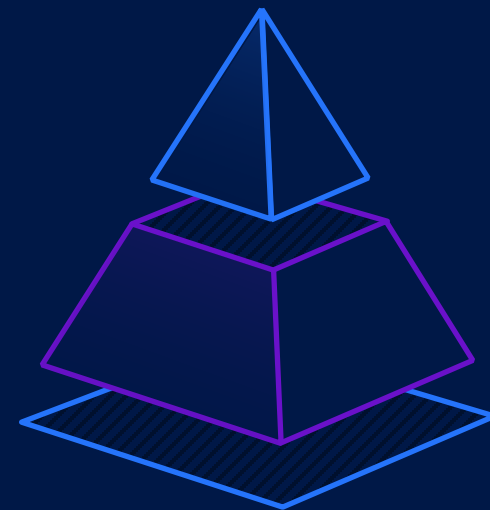
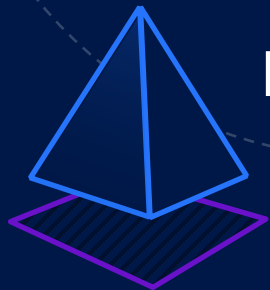
Function Name	Parameters	Visibility
✓ <code>excludeFromFees</code>	▪ <code>address account, bool excluded</code>	▪ <b>public</b>
✓ <code>excludeFromDividend</code>	▪ <code>address account</code>	▪ <b>public</b>
✓ <code>setAutomatedMarketMakerPair</code>	▪ <code>address pair, bool value</code>	▪ <b>external</b>
✓ <code>updateGasForProcessing</code>	▪ <code>uint256 newValue</code>	▪ <b>external</b>
✓ <code>updateMinimumBalanceForDividends</code>	▪ <code>uint256 newMinimumBalance</code>	▪ <b>external</b>
✓ <code>updateClaimWait</code>	▪ <code>uint256 claimWait</code>	▪ <b>external</b>
✓ <code>processDividendTracker</code>	▪ <code>uint256 gas</code>	▪ <b>external</b>





# Statistics

## Liquidity Info



Parameter	Result
Pair Address	0xc14bbca1416eed8168ccd1279c7611558648c251
Mizuchi Reserves	10,938.274997894 Mizuchi
Reserves, WBNB	23.093663076036311492 WBNB
Liquidity Value	\$ 6,789.21



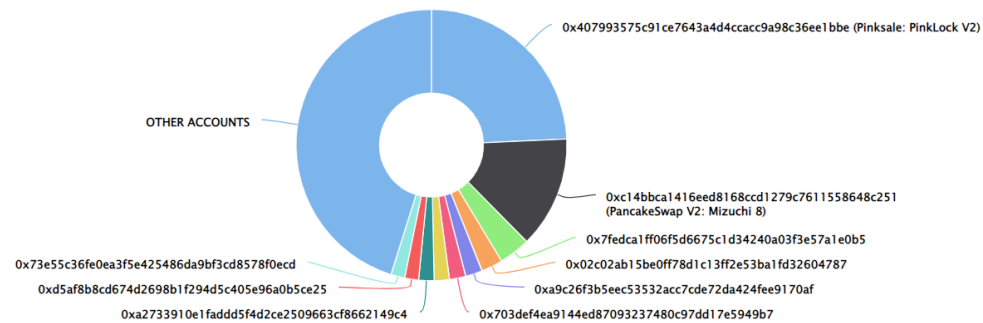
# Statistics

## Token (Mizuchi) Holders Info

Parameter	Result
Mizuchi Percentage Burnt	0 %
Mizuchi Amount Burnt	0 Mizuchi
Top 10 Percentage Own	54.84 %
Top 10 Amount Owned	45,127.73 Mizuchi

MIZUCHI Top 10 Token Holders

Source: BscScan.com







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