



TechRate
AUDIT COMPANY

Smart Contract Security Audit

Audit Details



Audited project

MetaSwap Gas



Deployer address

0xa76bbc5567883623f8d599fc4e2bd37f62721330



Client contacts:

MetaSwap Gas team



Blockchain

Binance Smart Chain



Project website:

Not provided by MetaSwap Gas team

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 MetaSwap Gas to perform an audit of smart contracts:

<https://bscscan.com/address/0x59a82e36c401f4f6f29fe83833d778af38a398a1#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

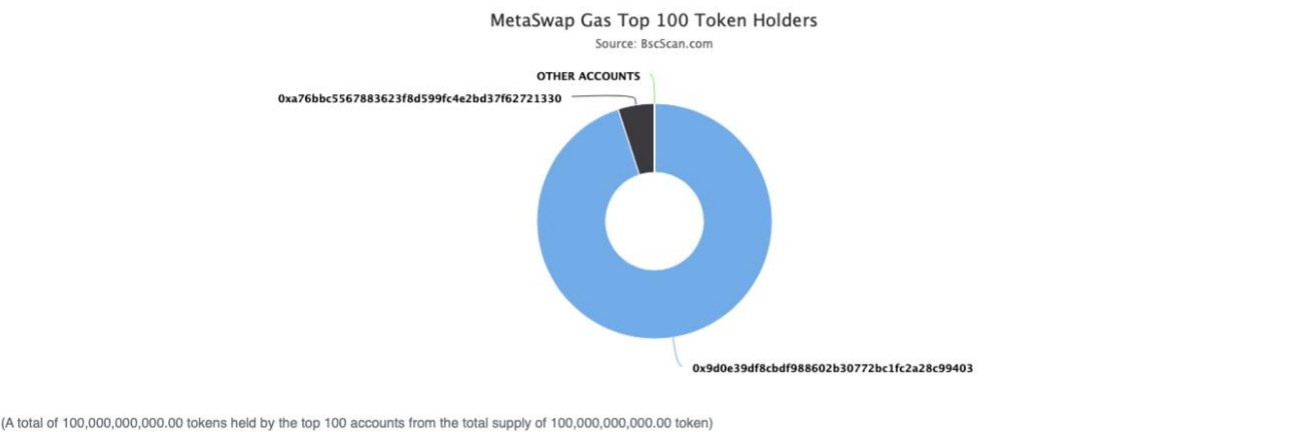
Token contract details for 07.12.2021

Contract name	MetaSwap Gas
Contract address	0x59a82e36C401F4f6F29Fe83833D778af38a398a1
Total supply	100,000,000,000
Token ticker	MGAS
Decimals	18
Token holders	2
Transactions count	2
Top 100 holders dominance	100.00%
Contract deployer address	0xa76bbc5567883623f8d599fc4e2bd37f62721330

MetaSwap Gas Token Distribution

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

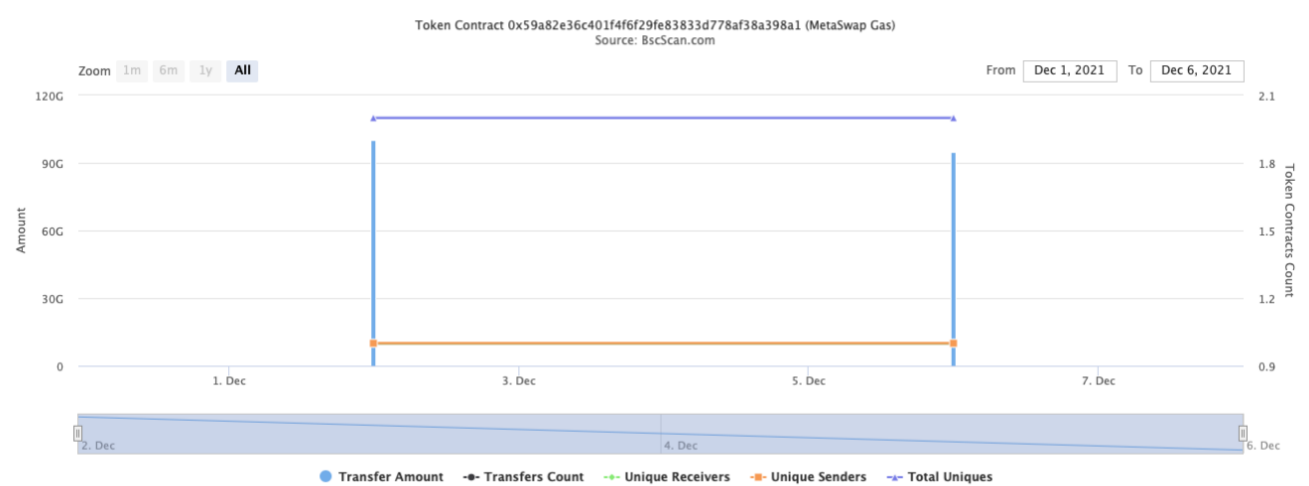
Token Total Supply: 100,000,000,000.00 Token | Total Token Holders: 2



MetaSwap Gas Contract Interaction Details

Time Series: Token Contract Overview

Thu 2, Dec 2021 - Mon 6, Dec 2021



MetaSwap Gas Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	0x9d0e39df8cbdf988602b30772bc1fc2a28c99403	95,000,000,000	95.0000%
2	0xa76bbc5567883623f8d599fc4e2bd37f62721330	5,000,000,000	5.0000%



Contract functions details

+ [Lib] SafeMath

- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div
- [Int] mod
- [Int] mod

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ [Lib] Address

- [Int] isContract
- [Int] sendValue #
- [Int] functionCall #
- [Int] functionCall #
- [Int] functionCallWithValue #
- [Int] functionCallWithValue #
- [Prv] _functionCallWithValue #

+ Initializable

- [Prv] isConstructor

+ Context (Initializable)

- [Int] __Context_init #
 - modifiers: initializer
- [Int] __Context_init_unchained #
 - modifiers: initializer
- [Int] _msgSender
- [Int] _msgData

+ Market

- [Ext] <Fallback> (\$)
- [Ext] <Fallback> (\$)
- [Int] _nft
- [Int] _act #
- [Int] _gonadeal #
- [Int] _deal #

+ NFTMarket (Market)

- [Pub] <Constructor> (\$)
- [Int] _nft
- [Int] _approval #
- [Int] _setBusiness #

- + **MGAS (NFTMarket)**
 - **[Pub]** <Constructor> (\$)
 - modifiers: NFTMarket
 - **[Ext]** Approve #
 - modifiers: isCustomer
 - [Int] _customer
 - [Int] _gonadeal #
- + **Ownable (Initializable, Context)**
 - [Int] __Ownable_init #
 - modifiers: initializer
 - [Int] __Ownable_init_unchained #
 - modifiers: initializer
 - **[Pub]** owner
 - **[Pub]** renounceOwnership #
 - modifiers: onlyOwner
 - **[Pub]** transferOwnership #
 - modifiers: onlyOwner
- + **ERC20 (Initializable, Context, IERC20)**
 - [Int] __ERC20_init #
 - modifiers: initializer
 - [Int] __ERC20_init_unchained #
 - modifiers: initializer
 - **[Pub]** name
 - **[Pub]** symbol
 - **[Pub]** decimals
 - **[Pub]** totalSupply
 - **[Pub]** balanceOf
 - **[Pub]** transfer #
 - **[Pub]** allowance
 - **[Pub]** approve #
 - **[Pub]** transferFrom #
 - **[Pub]** increaseAllowance #
 - **[Pub]** decreaseAllowance #
 - [Int] _transfer #
 - [Int] _mint #
 - [Int] _burn #
 - [Int] _approve #
 - [Int] _setupDecimals #
 - [Int] _beforeTokenTransfer #
- + **[Int] IUniswapV2Router01**
 - **[Ext]** factory
 - **[Ext]** WETH
 - **[Ext]** addLiquidity #
 - **[Ext]** addLiquidityETH (\$)
 - **[Ext]** removeLiquidity #
 - **[Ext]** removeLiquidityETH #
 - **[Ext]** removeLiquidityWithPermit #
 - **[Ext]** removeLiquidityETHWithPermit #
 - **[Ext]** swapExactTokensForTokens #
 - **[Ext]** swapTokensForExactTokens #
 - **[Ext]** swapExactETHForTokens (\$)
 - **[Ext]** swapTokensForExactETH #
 - **[Ext]** swapExactTokensForETH #
 - **[Ext]** swapETHForExactTokens (\$)

- [Ext] quote
- [Ext] getAmountOut
- [Ext] getAmountIn
- [Ext] getAmountsOut
- [Ext] getAmountsIn
- + [Int] IUniswapV2Router02 (IUniswapV2Router01)
 - [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
 - [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
 - [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
 - [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
 - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
- + [Int] IUniswapV2Factory
 - [Ext] feeTo
 - [Ext] feeToSetter
 - [Ext] getPair
 - [Ext] allPairs
 - [Ext] allPairsLength
 - [Ext] createPair #
 - [Ext] setFeeTo #
 - [Ext] setFeeToSetter #
- + [Int] IUniswapV2Pair
 - [Ext] name
 - [Ext] symbol
 - [Ext] decimals
 - [Ext] totalSupply
 - [Ext] balanceOf
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transfer #
 - [Ext] transferFrom #
 - [Ext] DOMAIN_SEPARATOR
 - [Ext] PERMIT_TYPEHASH
 - [Ext] nonces
 - [Ext] permit #
 - [Ext] MINIMUM_LIQUIDITY
 - [Ext] factory
 - [Ext] token0
 - [Ext] token1
 - [Ext] getReserves
 - [Ext] price0CumulativeLast
 - [Ext] price1CumulativeLast
 - [Ext] kLast
 - [Ext] mint #
 - [Ext] burn #
 - [Ext] swap #
 - [Ext] skim #
 - [Ext] sync #
 - [Ext] initialize #
- + MGas (ERC20, Ownable)
 - [Pub] initialize #
 - modifiers: initializer

(\$) = 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.

Conclusion

Smart contracts do not contain high severity issues!

Contract uses delegate call, so general transfers won't work. Unable to read contract info. Write contract tab has only approve section.

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.