

TechRate
January, 2023



SMART CONTRACTS SECURITY AUDIT REPORT



Techrate_audits



Techrate



Techrate1

Audit Details



Audited project

UnityMetaToken



Deployer address

0xf888d6f63f4575696c7cf76d4bbe9c884060511b



Client contacts:

<https://twitter.com/unitymetatoken>



Blockchain

Binance Smart Chain



Project website:

<https://unitymeta.finance>

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 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 UnityMetaToken to perform an audit of smart contracts:

<https://bscscan.com/address/0xca861e289f04cb9c67fd6b87ca7eafa59192f164#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 08.01.2023

Contract name	UnityMetaToken
Contract address	0xf888d6f63f4575696c7cf76d4bbe9c884060511b
Total supply	98,820.21527
Token ticker	UMT
Decimals	18
Token holders	5,634
Transactions count	14,288
Top 100 holders dominance	99.95%
Max buy limit	10000000000000000000000
Max burning	9000000000000000000000
Max sell limit	10000000000000000000000
Max wallet limit	10000000000000000000000
Contract deployer address	0xf888d6f63f4575696c7cf76d4bbe9c884060511b
Owner address	0xf888d6f63f4575696c7cf76d4bbe9c884060511b

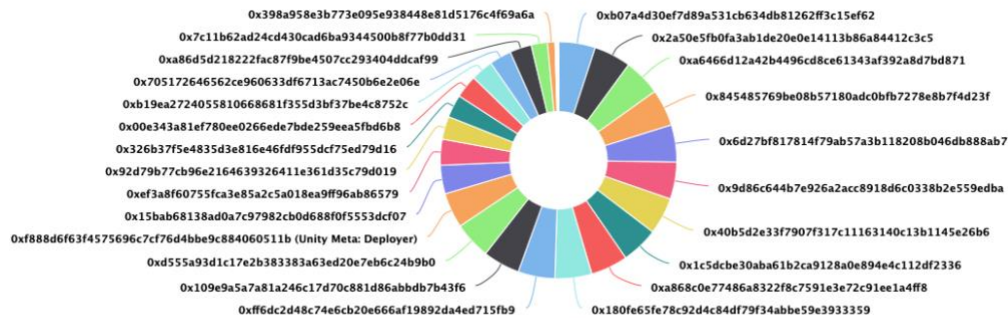
UnityMetaToken Token Distribution

The top 100 holders collectively own 99.95% (98,769.57 Tokens) of UnityMeta Token

Token Total Supply: 98,820.22 Token | Total Token Holders: 5,634

UnityMeta Token Top 100 Token Holders

Source: BscScan.com



(A total of 98,769.57 tokens held by the top 100 accounts from the total supply of 98,820.22 token)

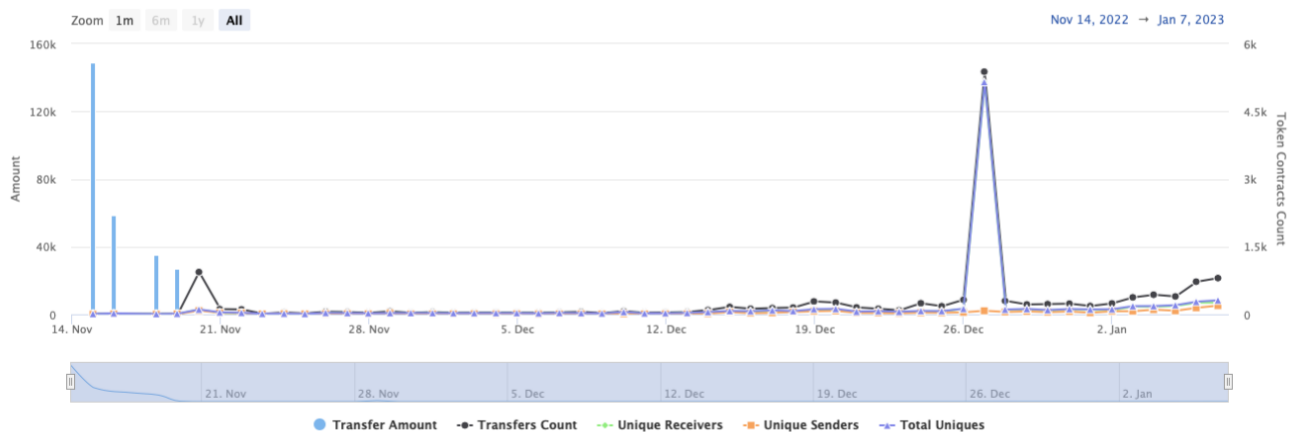
UnityMetaToken Contract Interaction Details

Time Series: Token Contract Overview

Tue 15, Nov 2022 - Sat 7, Jan 2023

Token Contract 0xca861e289f04cb9c67fd6b87ca7eafa59192f164 (UnityMeta Token)

Source: BscScan.com



UnityMetaToken Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	0xb07a4d30ef7d89a531cb634db81262ff3c15ef62	4,990.005	5.0496%
2	0x2a50e5fb0fa3ab1de20e0e14113b86a84412c3c5	4,990.005	5.0496%
3	0xa6466d12a42b4496cd8ce61343af392a8d7bd871	4,990.005	5.0496%
4	0x845485769be08b57180adc0bfb7278e8b7f4d23f	4,990.005	5.0496%
5	0x6d27bf817814f79ab57a3b118208b046db888ab7	4,990.005	5.0496%
6	0x9d86c644b7e926a2acc8918d6c0338b2e559edba	4,990.005	5.0496%
7	0x40b5d2e33f7907f317c11163140c13b1145e26b6	4,990.005	5.0496%
8	0x1c5dcbe30aba61b2ca9128a0e894e4c112df2336	4,990.005	5.0496%
9	0xa868c0e77486a8322f8c7591e3e72c91ee1a4ff8	4,990.005	5.0496%
10	0x180fe65fe78c92d4c84df79f34abbe59e3933359	4,990.005	5.0496%

Contract functions details

+ [Int] IBEP20

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

+ Context

- [Int] _msgSender
- [Int] _msgData

+ [Lib] SafeMath

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

+ Ownable (Context)

- [Pub] <Constructor> #
- [Pub] owner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner
- [Pub] transferOwnership #
 - modifiers: onlyOwner
- [Int] _transferOwnership #

+ UnityMetaToken (Context, IBEP20, Ownable)

- [Pub] <Constructor> #
- [Ext] getOwner
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] totalBurning

- [Ext] maxBurning
- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] viewAntiBotStatus
- [Ext] viewAntiBotTransferStatus
- [Ext] updateIsBlacklisted #
 - modifiers: onlyOwner
- [Ext] bulkIsBlacklisted #
 - modifiers: onlyOwner
- [Ext] updateAllowedTransfer #
 - modifiers: onlyOwner
- [Ext] bulkupdateAllowedTransfer #
 - modifiers: onlyOwner
- [Ext] updateMaxBurning #
 - modifiers: onlyOwner
- [Ext] updateMaxTxLimit #
 - modifiers: onlyOwner
- [Ext] updateMaxWalletlimit #
 - modifiers: onlyOwner
- [Prv] _burnToken
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Int] _transfer #
- [Int] _burn #
- [Int] _approve #
- [Int] _burnFrom #
- [Ext] rescueBNB #
 - modifiers: onlyOwner
- [Pub] rescueAnyBEP20Tokens #
 - 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.	Low issue
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

1. Out of gas

Issue:

- The function `bulkIsBlacklisted()` uses the loop to blacklist addresses. Function will be aborted with `OUT_OF_GAS` exception if there will be a long addresses list.
- The function `bulkupdateAllowedTransfer()` uses the loop to include addresses in `allowedTransfer` list. Function will be aborted with `OUT_OF_GAS` exception if there will be a long addresses list.

Recommendation:

Check that the arrays length is not too big.

Notes:











- `allowedTransfer` list restricts transfer when value is true.

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



- Owner can change `_maxBurning` and `maxWalletLimit`.
- Owner can change `maxBuyLimit` and `maxSellLimit`.
- Owner can blacklist addresses.
- Owner can include addresses in `allowedTransfer` array.
- Owner can withdraw contract BNBs and Bep20 tokens.

Testnet deployment

Contracts Description Table

Contract	Type	Bases	Mutability	Modifiers
L	Function Name	Visibility		
UnityMetaToken	Implementation	Context, IBEP20, Ownable		
	updateIsBlacklisted	External !		onlyOwner
	updateAllowedTransfer	External !		onlyOwner
	updateMaxBurning	External !		onlyOwner
	updateMaxTxLimit	External !		onlyOwner
	updateMaxWalletlimit	External !		onlyOwner
	transfer	External !		NO!
	approve	External !		NO!
	transferFrom	External !		NO!
	increaseAllowance	Public !		NO!
	decreaseAllowance	Public !		NO!

Legend

Symbol	Meaning
	Function can modify state
	Function is payable

Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope. The further transfers and operations with the funds raise are not related to this particular contract.

Liquidity locking details provided by the team:

<https://dxsale.app/dxlockview?id=0&add=0xca861e289f04cb9c67fd6b87ca7eafa59192f164&type=tokenlock&chain=BNB>

Security score: 87.

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.