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AUDIT COMPANY

Smart Contract Security Audit

TechRate

December, 2021

Audit Details

Audited project

GLOW

Deployer address

0xab5d9bf2ccc33c43cb91e98415dc795d2e3a43e4

Client contacts:

GLOW team

Blockchain

Binance Smart Chain

Project website:

https://glowtoken.online

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 GLOW to perform an audit of smart contracts:

https://bscscan.com/address/0xc7bAA7787Bb40C5d2523252bAf142413dCBbcD5b#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.

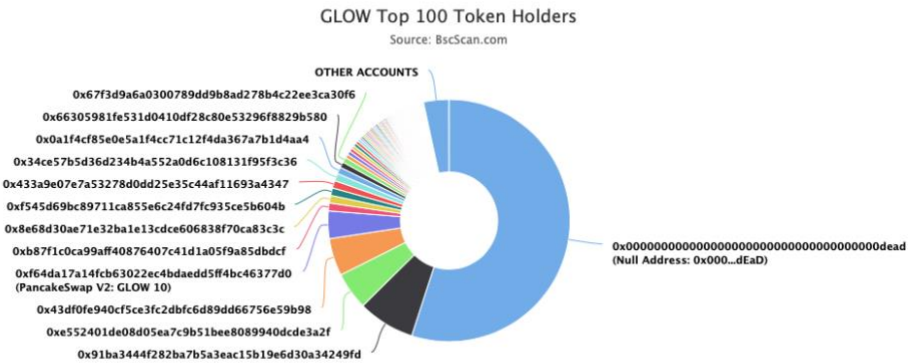
Contracts Details

Token contract details for 15.11.2021

Contract name	GLOW
Contract address	0xc7bAA7787Bb40C5d2523252bAf142413dCBbcD5b
Total supply	1,000,000,000,000,000
Token ticker	GLOW
Decimals	9
Token holders	3,944
Transactions count	21,324
Top 100 holders dominance	96.62%
Marketing fee receiver	0xe552401de08d05ea7c9b51bee8089940dcde3a2f
Multiplied fee	1600
Autoliquidity receiver	0xece3ad45592852fdb415ee88063498fdd9bce632
Uniswap V2 pair	0xf64da17a14fcb63022ec4bdaedd5ff4bc46377d0
Contract deployer address	0xab5d9bf2ccc33c43cb91e98415dc795d2e3a43e4
Contract's current owner address	0xab5d9bf2ccc33c43cb91e98415dc795d2e3a43e4

GLOW Token Distribution

The top 100 holders collectively own 96.62% (966,196,853,121,362.00 Tokens) of GLOW | Token Total Supply: 1,000,000,000,000,000.00 Token | Total Token Holders: 3,944

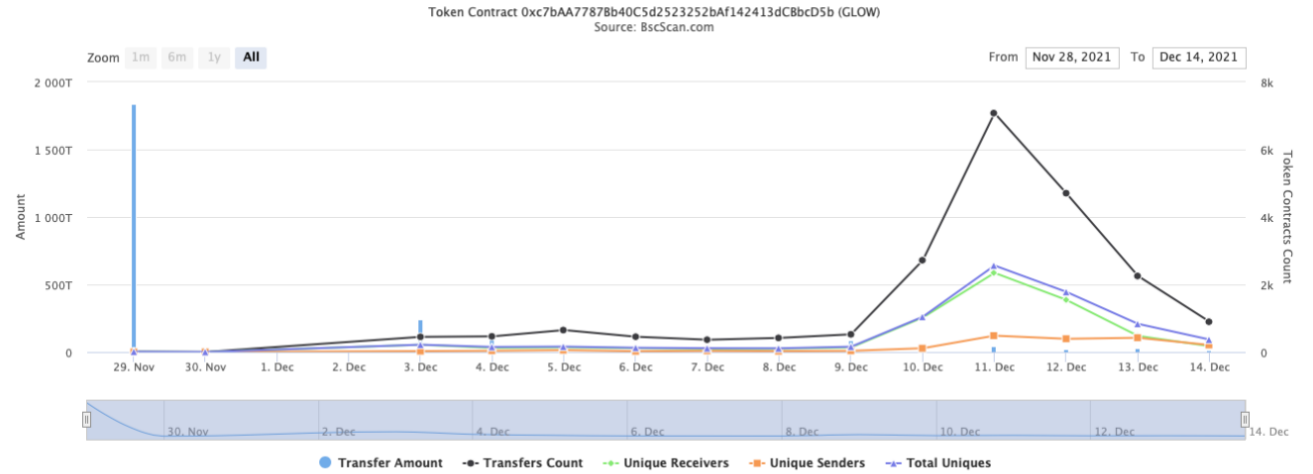


(A total of 966,196,853,121,362.00 tokens held by the top 100 accounts from the total supply of 1,000,000,000,000,000.00 token)

GLOW Contract Interaction Details

Time Series: Token Contract Overview

Mon 29, Nov 2021 - Tue 14, Dec 2021



GLOW Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	Null Address: 0x000...dEaD	550,000,000,000,120.6045826	55.0000%
2	0x91ba3444f282ba7b5a3eac15b19e6d30a34249fd	76,038,745,425,252.355438038	7.6039%
3	0xe552401de08d05ea7c9b51bee8089940dcde3a2f	50,000,000,000,000.84	5.0000%
4	0x43df0fe940cf5ce3fc2dbfc6d89dd66756e59b98	50,000,000,000,000.84	5.0000%
5	PancakeSwap V2: GLOW 10	36,684,024,326,558.794700375	3.6684%
6	0xb87f1c0ca99aff40876407c41d1a05f9a85dbdcf	10,518,753,568,042.415141431	1.0519%
7	0x8e68d30ae71e32ba1e13cdce606838f70ca83c3c	10,299,582,555,449.662507303	1.0300%
8	0xf545d69bc89711ca855e6c24fd7fc935ce5b604b	10,005,296,866,485	1.0005%
9	0x433a9e07e7a53278d0dd25e35c44af11693a4347	10,000,000,000,000	1.0000%
10	0x34ce57b5d36d234b4a552a0d6c108131f95f3c36	10,000,000,000,000	1.0000%

Contract functions details

+ [Lib] SafeMath
  - [Int] tryAdd
  - [Int] trySub
  - [Int] tryMul
  - [Int] tryDiv
  - [Int] tryMod
  - [Int] add
  - [Int] sub
  - [Int] mul
  - [Int] div
  - [Int] mod
  - [Int] sub
  - [Int] div
  - [Int] mod

+ [Int] IBEP20
  - [Ext] totalSupply
  - [Ext] decimals
  - [Ext] symbol
  - [Ext] name
  - [Ext] getOwner
  - [Ext] balanceOf
  - [Ext] transfer #
  - [Ext] allowance
  - [Ext] approve #
  - [Ext] transferFrom #

+ Auth
  - [Pub] <Constructor> #
  - [Pub] authorize #
    - modifiers: onlyOwner
  - [Pub] unauthorize #
    - modifiers: onlyOwner
  - [Pub] isOwner
  - [Pub] isAuthorized
  - [Pub] transferOwnership #
    - modifiers: onlyOwner

+ [Int] IDEXFactory
  - [Ext] createPair #

+ [Int] IDEXRouter
  - [Ext] factory
  - [Ext] WETH
  - [Ext] addLiquidity #
  - [Ext] addLiquidityETH ($)
  - [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
  - [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens ($)
  - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

+ [Int] IDividendDistributor

- [Ext] setDistributionCriteria #
- [Ext] setShare #
- [Ext] deposit ($)
- [Ext] process #

+ DividendDistributor (IDividendDistributor)
- [Pub] <Constructor> #
- [Ext] setDistributionCriteria #
  - modifiers: onlyToken
- [Ext] setShare #
  - modifiers: onlyToken
- [Ext] deposit ($)
  - modifiers: onlyToken
- [Ext] process #
  - modifiers: onlyToken
- [Int] shouldDistribute
- [Int] distributeDividend #
- [Ext] claimDividend #
- [Pub] getUnpaidEarnings
- [Int] getCumulativeDividends
- [Int] addShareholder #
- [Int] removeShareholder #

+ Glow (IBEP20, Auth)
- [Pub] <Constructor> #
  - modifiers: Auth
- [Ext] <Fallback> ($)
- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Pub] balanceOf
- [Ext] allowance
- [Pub] approve #
- [Ext] approveMax #
- [Ext] transfer #
- [Ext] transferFrom #
- [Int] _transferFrom #
- [Int] _basicTransfer #
- [Int] checkTxLimit
- [Int] shouldTakeFee
- [Pub] getTotalFee
- [Pub] getMultipliedFee
- [Int] takeFee #
- [Int] shouldSwapBack
- [Int] swapBack #
  - modifiers: swapping
- [Pub] swapBNBtoBUSD #
- [Prv] random #
- [Pub] sendLotteryReward #
  - modifiers: onlyOwner
- [Int] shouldAutoBuyback
- [Ext] triggerZeusBuyback #
  - modifiers: authorized

- [Ext] clearBuybackMultiplier #
  - modifiers: authorized
- [Int] triggerAutoBuyback #
- [Int] buyTokens #
  - modifiers: swapping
- [Ext] setAutoBuybackSettings #
  - modifiers: authorized
- [Ext] setBuybackMultiplierSettings #
  - modifiers: authorized
- [Int] launched
- [Pub] launch #
  - modifiers: authorized
- [Ext] setTxLimit #
  - modifiers: authorized
- [Ext] setIsDividendExempt #
  - modifiers: authorized
- [Ext] setIsFeeExempt #
  - modifiers: authorized
- [Ext] setIsTxLimitExempt #
  - modifiers: authorized
- [Ext] setFees #
  - modifiers: authorized
- [Ext] setFeeReceivers #
  - modifiers: authorized
- [Ext] setSwapBackSettings #
  - modifiers: authorized
- [Ext] setTargetLiquidity #
  - modifiers: authorized
- [Ext] setDistributionCriteria #
  - modifiers: authorized
- [Ext] setDistributorSettings #
  - modifiers: authorized
- [Pub] getCirculatingSupply
- [Pub] getLiquidityBacking
- [Pub] isOverLiquified

($) = 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.

Notes

- No transfer event emitted when basic transfer called.

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

- Owner can call triggerZeusBuyback that's initiate buyback.
- Owner can clear buyback multiplier.
- Owner can change auto buyback settings.
- Owner can change buyback multiplier settings.
- Owner can change the maximum transaction amount.
- Owner can include in and exclude from dividends.
- Owner can include in and exclude from fee and transaction amount.
- Owner can change fees.
- Owner can change fee receivers.
- Owner can change swap threshold and disable/enable swap.
- Owner can change target liquidity values.
- Owner can change distribution criteria.
- Owner can change distribution GAS.
- Owner can send lottery reward.

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.pinksale.finance/#/launchpad/0x21133BeA502f3Fc75e5a07572Dd7b88fc993a3db?chain=BSC

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.