



Smart Contract Security Audit

<u>TechRate</u> August, 2021

Audit Details



Audited project

Billion



Deployer address

0xd55c6edf4efd477a1ece862997321a4790b34afa



Client contacts:

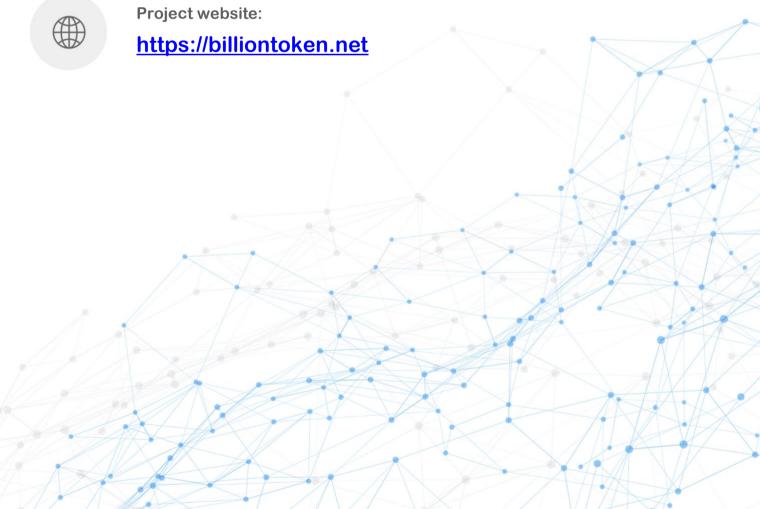
Billion team



Blockchain

Ethereum





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 Billion to perform an audit of smart contracts:

 $\underline{https://etherscan.io/address/0x065cc8636a00c007276ed9cb874cd59b89e6609b\#code}$

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.

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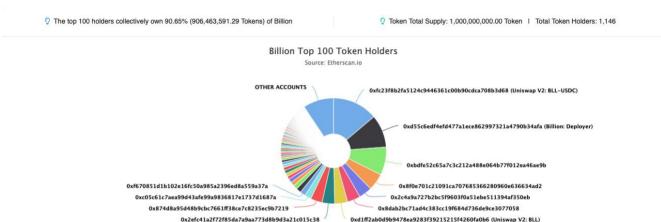
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Contracts Details

Token contract details for 26.08.2021

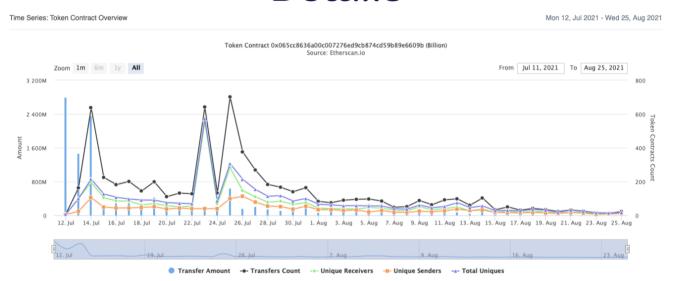
Contract name	Billion
Contract address	0x065cC8636A00C007276ED9CB874CD59b89e6609 b
Total supply	1,000,000,000
Token ticker	BLL
Decimals	18
Token holders	1,146
Transactions count	6,365
Top 100 holders dominance	90.65%
Contract deployer address	0xd55c6edf4efd477a1ece862997321a4790b34afa

Billion Token Distribution



(A total of 906,463,591.29 tokens held by the top 100 accounts from the total supply of 1,000,000,000.00 token)

Billion Contract Interaction Details



Billion Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	Uniswap V2: BLL-USDC	138,413,741.430865065111444273	13.8414%
2	Billion: Deployer	100,000,000	10.0000%
3	0xbdfe52c65a7c3c212a488e064b77f012ea46ae9b	85,857,718.171939318742068616	8.5858%
4	0x8f0e701c21091ca707685366280960e636634ad2	52,484,652.491692542696369579	5.2485%
5	0x2c4a9a727b2bc5f9603f0a51ebe511394af350eb	40,055,390.751877366139803225	4.0055%
6	0x8dab2bc71ad4c383cc19f684d736de9ce3077058	40,000,000	4.0000%
7	Uniswap V2: BLL	39,776,346.502517953497330317	3.9776%
8	0x2efc41a2f72f85da7a9aa773d8b9d3a21c015c38	38,495,557.92727557857495552	3.8496%
9	0x874d8a95d48b9cbc7661ff38ce7c8235ec9b7219	35,567,492.628485831262016594	3.5567%
10	0xc05c61c7aea99d43afe99a9836817e1737d1687a	20,273,637.473653610619967173	2.0274%



Contract functions details

```
+ Context
 - [Int] _msgSender
 - [Int] msgData
+ [Int] IERC20
 - [Ext] totalSupply
 - [Ext] balanceOf
 - [Ext] transfer #
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transferFrom #
+ [Int] IERC20Metadata (IERC20)
 - [Ext] name
 - [Ext] symbol
 - [Ext] decimals
+ ERC20 (Context, IERC20, IERC20Metadata)
 - [Pub] <Constructor>#
 - [Pub] name
 - [Pub] symbol
 - [Pub] decimals
 - [Pub] totalSupply
 - [Pub] balanceOf
 - [Int] _burn #
 - [Pub] transfer #
 - [Pub] allowance
 - [Pub] approve #
 - [Pub] transferFrom #
 - [Pub] increaseAllowance #
 - [Pub] decreaseAllowance #
 - [Int] transfer #
 - [Int] _mint #
 - [Int] _approve #
 - [Int] beforeTokenTransfer #
+ ERC20Burnable (Context, ERC20)
 - [Pub] burn #
 - [Pub] burnFrom #
+ ERC20PresetFixedSupply (ERC20Burnable)
 - [Pub] <Constructor>#
   - modifiers: ERC20
+ Billion (ERC20PresetFixedSupply)
 - [Pub] <Constructor> #
   - modifiers: ERC20PresetFixedSupply
($) = 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! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details provided by the team: https://app.unicrypt.network/amm/univ2/token/0x065cC8636A00C007276ED9CB874CD59b89e6609b

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.

