



TechRate
AUDIT COMPANY

Smart Contract Security Audit

TechRate

July, 2021

Audit Details



Audited project

Dolphins Finance



Deployer address

0x3290458d69788302c7dcA753896F3c0A10952368



Client contacts:

Dolphins Finance team



Blockchain

Binance Smart Chain



Project website:

Not provided

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 Dolphins Finance to perform an audit of smart contracts:

<https://bscscan.com/address/0x94c38Ba4872C63eCA2dB3fC1127107759C0487bD#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 01.07.2021

Contract name	Dolphins Finance
Contract address	0x94c38Ba4872C63eCA2dB3fC1127107759C0487bD
Total supply	500,000,000
Token ticker	Dolph
Decimals	8
Token holders	1
Transactions count	5
Top 100 holders dominance	100.00%
Contract deployer address	0x3290458d69788302c7dcA753896F3c0A10952368
Contract's current owner address	0xd652cb50fd126c5c800d59c4f99d58c00375056b

Dolphins Finance Token Distribution

The top 100 holders collectively own 100.00% (500,000,000.00 Tokens) of Dolphins Finance

Token Total Supply: 500,000,000.00 Token | Total Token Holders: 1

Dolphins Finance Top 100 Token Holders
Source: BscScan.com



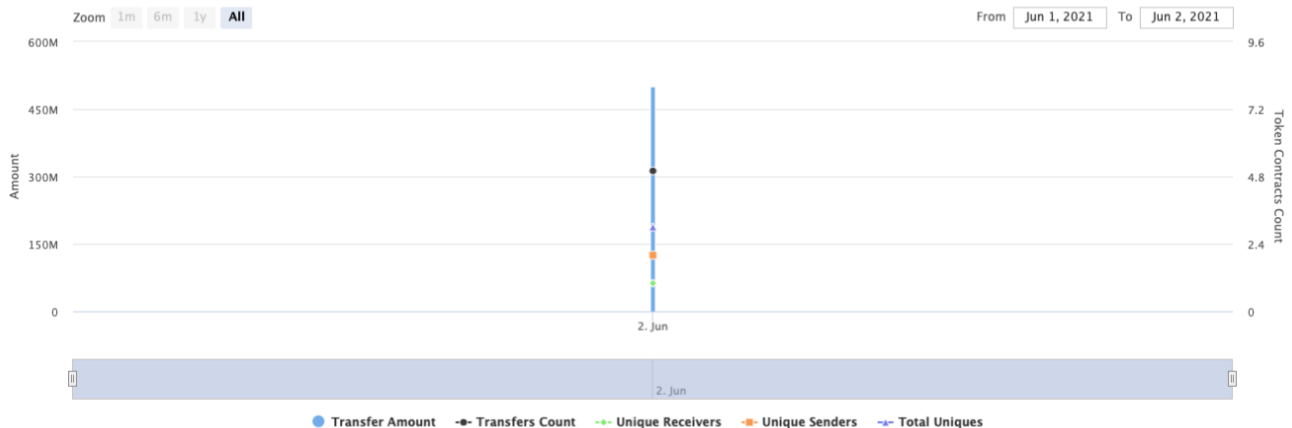
(A total of 500,000,000.00 tokens held by the top 100 accounts from the total supply of 500,000,000.00 token)

Dolphins Finance Contract Interaction Details

Time Series: Token Contract Overview

Wed 2, Jun 2021 - Wed 2, Jun 2021

Token Contract 0x94c388a4872C63eCA2dB3fC1127107759C0487bD (Dolphins Finance)
Source: BscScan.com



Dolphins Finance Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	0xd652cb50fd126c5c800d59c4f99d58c00375056b	500,000,000	100.0000%



Contract functions details

- + BEP20Basic
 - [Pub] totalSupply
 - [Pub] balanceOf
 - [Pub] transfer #
- + [Lib] SafeMath
 - [Int] mul
 - [Int] div
 - [Int] sub
 - [Int] add
- + BasicToken (BEP20Basic)
 - [Pub] totalSupply
 - [Pub] transfer #
 - [Pub] balanceOf
- + BEP20 (BEP20Basic)
 - [Pub] allowance
 - [Pub] transferFrom #
 - [Pub] approve #
- + StandardToken (BEP20, BasicToken)
 - [Pub] transferFrom #
 - [Pub] approve #
 - [Pub] allowance
 - [Pub] increaseApproval #
 - [Pub] decreaseApproval #
- + Ownable
 - [Pub] <Constructor> #
 - [Pub] renounceOwnership #
 - modifiers: onlyOwner
 - [Pub] transferOwnership #
 - modifiers: onlyOwner
 - [Int] _transferOwnership #
- + MintableToken (StandardToken, Ownable)
 - [Pub] mint #
 - modifiers: hasMintPermission,canMint
 - [Pub] finishMinting #
 - modifiers: onlyOwner,canMint
- + FreezableToken (StandardToken)
 - [Pub] balanceOf
 - [Pub] actualBalanceOf
 - [Pub] freezingBalanceOf
 - [Pub] freezingCount
 - [Pub] getFreezing
 - [Pub] freezeTo #
 - [Pub] releaseOnce #
 - [Pub] releaseAll #

- [Int] toKey
- [Int] freeze #
- + BurnableToken (BasicToken)
 - [Pub] burn #
 - [Int] _burn #
- + Pausable (Ownable)
 - [Pub] pause #
 - modifiers: onlyOwner,whenNotPaused
 - [Pub] unpause #
 - modifiers: onlyOwner,whenPaused
- + FreezableMintableToken (FreezableToken, MintableToken)
 - [Pub] mintAndFreeze #
 - modifiers: onlyOwner,canMint
- + Consts
- + MainToken (Consts, FreezableMintableToken, BurnableToken, Pausable)
 - [Pub] <Constructor> #
 - [Pub] name
 - [Pub] symbol
 - [Pub] decimals
 - [Pub] transferFrom #
 - [Pub] transfer #
 - [Prv] init #

(\$) = 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.

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

- Owner can mint and freeze if mintingFinished is set to false.

```
function mintAndFreeze(address _to↑, uint _amount↑, uint64 _until↑) public onlyOwner canMint returns (bool) {
    totalSupply_ = totalSupply_.add(_amount↑);

    bytes32 currentKey = toKey(_to↑, _until↑);
    freezings[currentKey] = freezings[currentKey].add(_amount↑);
    freezingBalance[_to↑] = freezingBalance[_to↑].add(_amount↑);

    freeze(_to↑, _until↑);
    emit Mint(_to↑, _amount↑);
    emit Freezed(_to↑, _until↑, _amount↑);
    emit Transfer(msg.sender, _to↑, _amount↑);
    return true;
}
```

Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details NOT provided by the team.

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.



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