



TechRate

AUDIT COMPANY

Smart Contract Security Audit

TechRate

June, 2021

Audit Details



Audited project

Bluefox



Deployer address

0xa9bAEd429E719c6233279B0E1FAf34283A63D83d



Client contacts:

Bluefox team



Blockchain

Binance Smart Chain



Project website:

www.bluefoxfinance.com

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 Bluefox to perform an audit of smart contracts:

<https://bscscan.com/address/0x5df1cdce78eda8cdc4dc941b5c772ee54b2a85b9#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 19.06.2021

Contract name	Bluefox
Contract address	0x5Df1cDcE78eDa8CdC4DC941b5C772eE54b2A85b9
Total supply	1,000,000,000
Token ticker	BFX
Decimals	18
Token holders	2
Transactions count	2
Top 100 holders dominance	100.00%
Staking address	0x16a58b2feeaa966b737f52c975fcee bd7d1beeeb
Charity address	0x8b99f3660622e21f2910ecca7fbe51d654a1517d
Total swapped to BNB	0
Uniswap V2 pair	0x73953cb3397000a1483e21c4216e2fd90c64a1b8
Contract deployer address	0xa9bAEd429E719c6233279B0E1FAf34283A63D83d
Contract's current owner address	0xa9baed429e719c6233279b0e1faf34283a63d83d

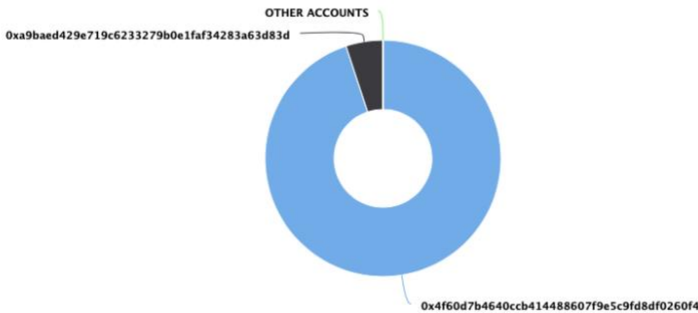
Bluefox Token Distribution

The top 100 holders collectively own 100.00% (1,000,000,000.00 Tokens) of Bluefox

Token Total Supply: 1,000,000,000.00 Token | Total Token Holders: 2

Bluefox Top 100 Token Holders

Source: BscScan.com



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

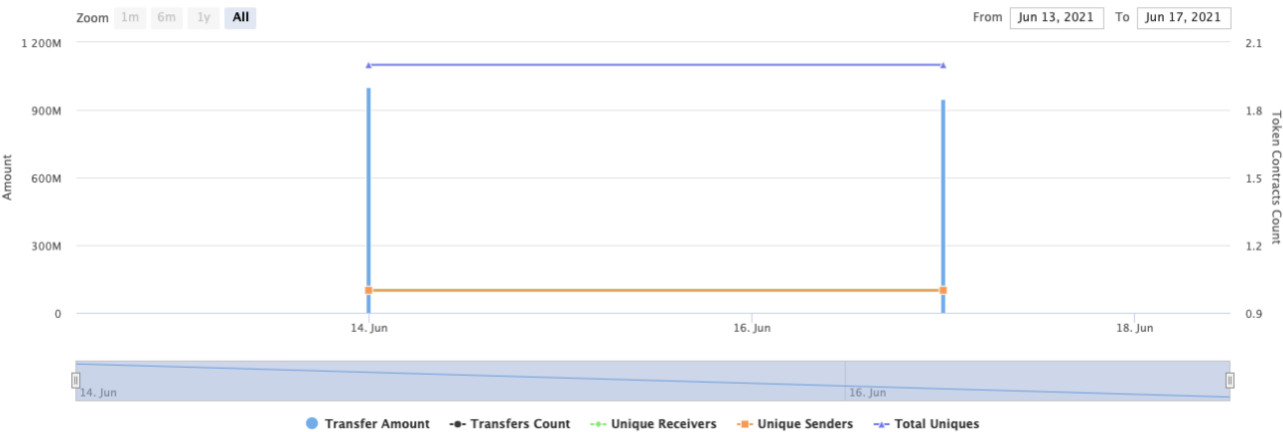
Bluefox Contract Interaction Details

Time Series: Token Contract Overview

Mon 14, Jun 2021 - Thu 17, Jun 2021

Token Contract 0x5df1cdce78eda8cdc4dc941b5c772ee54b2a85b9 (Bluefox)

Source: BscScan.com



Bluefox Top 10 Token Holders

Rank	Address	Quantity (Token)	Percent
1.	0x4f60d7b4640ccb414488607f9e5c9fd8df0260f4	949,262,800	94.9263%
2.	0xa9baed429e719c6233279b0e1faf34283a63d83d	50,737,200	5.0737%



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

+ Ownable (Context)

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

+ [Int] IUniswapV2Router02 (IUniswapV2Router01)

- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

+ [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] 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 #

- + [Int] IUniswapV2Factory
 - [Ext] feeTo
 - [Ext] feeToSetter
 - [Ext] getPair
 - [Ext] allPairs
 - [Ext] allPairsLength
 - [Ext] createPair #
 - [Ext] setFeeTo #
 - [Ext] setFeeToSetter #

- + [Int] IERC20
 - [Ext] totalSupply
 - [Ext] balanceOf
 - [Ext] transfer #
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transferFrom #

- + Context
 - [Int] _msgSender
 - [Int] _msgData

- + BaseERC20 (Context, Ownable)
 - [Pub] <Constructor> #
 - [Pub] name
 - [Pub] symbol

- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] approve #
- [Pub] allowance
- [Pub] transfer #
- [Pub] transferFrom #
- [Int] _transfer #
- [Int] _approve #

- + [Int] IStaking
 - [Ext] distribute (\$)

- + Bluefox (BaseERC20)
 - [Pub] <Constructor> #
 - modifiers: BaseERC20
 - [Int] _transfer #
 - [Prv] _feeTransfer #
 - [Prv] _noFeeTransfer #
 - [Prv] _isWhitelisted
 - [Ext] <Fallback> (\$)
 - [Prv] _swap #
 - [Prv] swapTokensForEth #
 - [Prv] addLiquidity #
 - [Ext] setStakingAddress #
 - modifiers: onlyOwner
 - [Ext] updateWhitelist #
 - 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.	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 change staking address.

```
function setStakingAddress(address newAddress↑) external onlyOwner {
    require(
        address(stakingAddress) == address(0),
        "Staking address already set"
    );

    stakingAddress = IStaking(newAddress↑);
    emit UpdateStakingAddress(newAddress↑);
}
```

- Owner can change whitelist values.

```
function updateWhitelist(address addr↑, bool isWhitelisted↑)
    external
    onlyOwner
{
    _whitelist[addr↑] = isWhitelisted↑;
    emit Whitelist(addr↑, isWhitelisted↑);
}
```

Conclusion

Smart contracts contain low 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/pancake-v2/ilo/0x4F60D7B4640ccB414488607F9e5C9fD8DF0260F4>

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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