



# Security Assessment BLOX

Vital Block Verified On March 18th, 2023

 @Vital-Block

 @VB\_Audit

 info@vitalblock.org



 www.vitalblock.org



PREPARED FOR:  
BLOX FINANCE



## INTRODUCTION

<b>Auditing Company</b>	 <b>VITAL BLOCK SECURITY</b>
<b>Client Project</b>	 <b>BLOX FINANCE</b>
<b>Methodology</b>	Automated Analysis, Manual Code Review
<b>Language</b>	Solidity
<b>License</b>	MIT
<b>Contract Address</b>	0x46d84f7a78d3e5017fd33b990a327f8e2e28f30b
<b>Network</b>	ARBITRUM CHAIN
<b>Optimization</b>	200 RUNS
<b>Token Type</b>	ERC20
<b>Website</b>	<a href="https://www.bloxfi.io/">https://www.bloxfi.io/</a>
<b>Telegram</b>	<a href="https://t.me/+MLX2UF5RF1xjMTEEx">https://t.me/+MLX2UF5RF1xjMTEEx</a>
<b>Twitter</b>	<a href="https://twitter.com/BLOX_FI">https://twitter.com/BLOX_FI</a>
<b>Discord</b>	<a href="https://discord.gg/kxtF3txsnE">https://discord.gg/kxtF3txsnE</a>
<b>Prelim Report Date</b>	March 15, 2023
<b>Final Report Date</b>	March 18, 2023



Verify the authenticity of this report on our GitHub Repo: <https://www.github.com/vital-block>

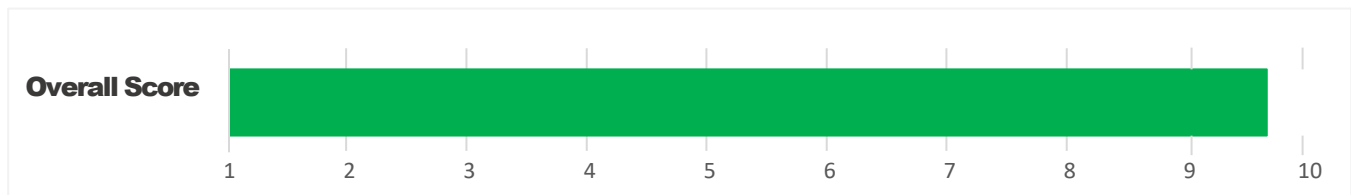


## EXECUTIVE SUMMARY

Vital Block has performed the automated and manual analysis of the Sol code. The code was reviewed for common contract vulnerabilities and centralized exploits. Here's a quick audit summary:

Status	Critical ! 🔴	Major " 🟡	Medium # 🟡	Minor \$ 🟢	Unknown % 🟤
Open	0	0	0	1	0
Acknowledged	0	0	1	3	0
Resolved	0	0	0	1	0
Noteworthy OnlyOwner Privileges	Set Taxes and Ratios, Airdrop, Set Protection Settings, Set Reward Properties, Set Reflector Settings, Set Swap Settings, Set Pair and Router				

**BLOX FINANCE** Smart contract has achieved the following score: **97**



**Please note that smart contracts deployed on blockchains aren't resistant to exploits, vulnerabilities and/or hacks. Blockchain and cryptography assets utilize new and emerging technologies. These technologies present a high level of ongoing risks. For a detailed understanding of risk severity, source code vulnerability, and audit limitations, kindly review the audit report thoroughly.**

**Please note that centralization privileges regardless of their inherited risk status - constitute an elevated impact on smart contract safety and security.**



## SCOPE OF WORK

Vital Block was consulted by BLOX FINANCE to conduct the smart contract audit of its .Sol source code. The audit scope of work is strictly limited to mentioned .SOL file only:

OBloxFi.Sol



External contracts and/or interfaces dependencies are not checked due to being out of scope.

Verify audited contract's contract address and deployed link below:

Public Contract.

0x46d84f7a78d3e5017fd33b990a327f8e2e28f30b

Contract Name	BloxFi
Token Symbol	BLOX
Total Supply	1,000,000
Decimals	18
Blockchain	Arbitrum Network



## AUDIT METHODOLOGY

Smart contract audits are conducted using a set of standards and procedures. Mutual collaboration is essential to performing an effective smart contract audit. Here's a brief overview of Vital Block auditing process and methodology:

### CONNECT

- The onboarding team gathers source codes, and specifications to make sure we understand the size, and scope of the smart contract audit.

### AUDIT

- Automated analysis is performed to identify common contract vulnerabilities. We may use the following third-party frameworks and dependencies to perform the automated analysis:
  - Remix IDE Developer Tool
  - Open Zeppelin Code Analyzer
  - SWC Vulnerabilities Registry
  - DEX Dependencies, e.g., Pancakeswap, Uniswap
- Simulations are performed to identify centralized exploits causing contract and/or trade locks.
- A manual line-by-line analysis is performed to identify contract issues and centralized privileges.

We may inspect below mentioned common contract vulnerabilities, and centralized exploits:

Centralized Exploits	<ul style="list-style-type: none"><li>○ Token Supply Manipulation</li><li>○ Access Control and Authorization</li><li>○ Assets Manipulation</li><li>○ Ownership Control</li><li>○ Liquidity Access</li><li>○ Stop and Pause Trading</li><li>○ Ownable Library Verification</li></ul>
----------------------	---



### Common Contract Vulnerabilities

- Integer Overflow
- Lack of Arbitrary limits
- Incorrect Inheritance Order
- Typographical Errors
- Requirement Violation
- Gas Optimization
- Coding Style Violations
- Re-entrancy
- Third-Party Dependencies
- Potential Sandwich Attacks
- Irrelevant Codes
- Divide before multiply
- Conformance to Solidity Naming Guides
- Compiler Specific Warnings
- Language Specific Warnings

### REPORT

- The auditing team provides a preliminary report specifying all the checks which have been performed and the findings thereof.
- The client's development team reviews the report and makes amendments to the codes.
- The auditing team provides the final comprehensive report with open and unresolved issues.

### PUBLISH

- The client may use the audit report internally or disclose it publicly.






 It is important to note that there is no pass or fail in the audit, it is recommended to view the audit

as an unbiased assessment of the safety of solidity codes.



## RISK CATEGORIES

Smart contracts are generally designed to hold, approve, and transfer tokens. This makes them very tempting attack targets. A successful external attack may allow the external attacker to directly exploit. A successful centralization-related exploit may allow the privileged role to directly exploit. All risks which are identified in the audit report are categorized here for the reader to review:

Risk Type	Definition
<b>Critical</b> ! 	These risks could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.
<b>Major</b> " 	These risks are hard to exploit but very important to fix, they carry an elevated risk of smart contract manipulation, which can lead to high-risk severity.
<b>Medium</b> # 	These risks should be fixed, as they carry an inherent risk of future exploits, and hacks which may or may not impact the smart contract execution. Low-risk re-entrancy-related vulnerabilities should be fixed to deter exploits.
<b>Minor</b> \$ 	These risks do not pose a considerable risk to the contract or those who interact with it. They are code-style violations and deviations from standard practices. They should be highlighted and fixed nonetheless.
<b>Unknown</b> % 	These risks pose uncertain severity to the contract or those who interact with it. They should be fixed immediately to mitigate the risk uncertainty.

All statuses which are identified in the audit report are categorized here for the reader to review:

Status Type	Definition
<b>Open</b>	Risks are open.
<b>Acknowledged</b>	Risks are acknowledged, but not fixed.
<b>Resolved</b>	Risks are acknowledged and fixed.



## CENTRALIZED PRIVILEGES

**Centralization risk is the most common cause of cryptography asset loss. When a smart contract has a privileged role, the risk related to centralization is elevated.**

**There are some well-intended reasons have privileged roles, such as:**

- **Privileged roles can be granted the power to `pause()` the contract in case of an external attack.**
- **Privileged roles can use functions like, `include()`, and `exclude()` to add or remove wallets from fees, swap checks, and transaction limits. This is useful to run a presale and to list on an exchange.**

**Authorizing privileged roles to externally-owned-account (EOA) is dangerous. Lately, centralization-related losses are increasing in frequency and magnitude.**

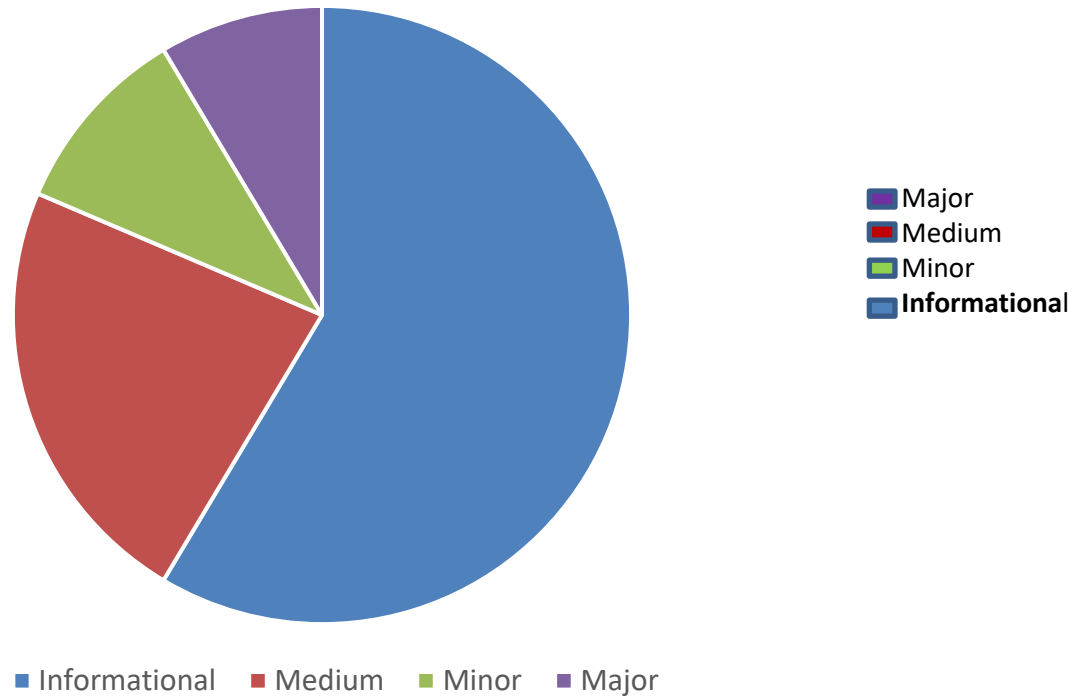
- **The client can lower centralization-related risks by implementing below mentioned practices:**
- **Privileged role's private key must be carefully secured to avoid any potential hack.**
- **Privileged role should be shared by multi-signature (multi-sig) wallets.**
- **Authorized privilege can be locked in a contract, user voting, or community DAO can be introduced to unlock the privilege.**
- **Renouncing the contract ownership, and privileged roles.**
- **Remove functions with elevated centralization risk.**

 **Understand the project's initial asset distribution. Assets in the liquidity pair should be locked. Assets outside the liquidity pair should be locked with a release schedule.**











## Finding Summary








## Status Icon Definitions

	Resolved		In Progress		Ignored (pro)
	Not Resolved		Incorrect		Ignored (con)

## Contract Ownership

**0x46d84f7a78d3e5017fd33b990a327f8e2e28f30b** Is The Owner Of The Contracts.

## Summary

-  Owner is not able to change or set taxes (0% tax)
-  Owner is not able to set a max amount for buys/sells/transfer
-  Owner is not able to pause trades
-  Owner is not able to mint new tokens
-  Owner is not able to blacklist an arbitrary address






## Issues Found

Vital Block Security found that the **BLOX FINANCE** contracts contain no critical issue, no major issues, and 1 minor issue, in addition to 3 informational notes.

We recommend all issues are amended, while the notes are up to the team's discretion, as it refers to best practices.



## AUTOMATED ANALYSIS

Symbol	Definition
	Function modifies state
	Function is payable
	Function is internal
	Function is private
	Function is important

```

**BloxFi** | Interface | |||
| L | totalSupply | External | ! | NO |
| L | decimals | External | ! | NO |
| L | symbol | External | ! | NO |
| L | name | External | ! | NO |
| L | getOwner | External | NO |
| L | balanceOf | External | ! | NO |
| L | transfer | External | " ! ! | NO |
| L | allowance | External | ! | NO |
| L | approve | External | " ! ! | NO |
| L | transferFrom | External | " | NO |
|||||
**IFactoryV2** | Interface | |||
| L | getPair | External | NO | |
| L | createPair | External | " | NO |
|||||
**IV2Pair** | Interface | |||
| L | factory | External | NO | |
| L | getReserves | External | NO |
| L | sync | External | " | NO |

```



|||||

**\*\*IRouter01\*\*** | Interface | |||

| L | factory | External | | |NO| |

| L | ETH | External | | |NO| |

| L | addLiquidityETH | External | | # |NO| |

| L | addLiquidity | External | | " |NO| |

| L | swapExactAPTFForTokens | External | | # |NO| |

| L | getAmountsOut | External | | |NO| |

| L | getAmountsIn | External | | |NO| |

|||||

**\*\*IRouter02\*\*** | Interface | IRouter01 |||

| L | swapExactTokensForETHSupportingFeeOnTransferTokens | External | | " |NO| |

| L | swapExactETHForTokensSupportingFeeOnTransferTokens | External | | # |NO| |

| L | swapExactTokensForTokensSupportingFeeOnTransferTokens | External | | " ! |NO| |

| L | swapExactTokensForTokens | External | | " |NO| |

|||||

**\*\*Protections\*\*** | Interface | |||

| L | checkUser | External | | " ! |NO| |

| L | setLaunch | External | | " |NO| |

| L | setLpPair | External | | " |NO| |

| L | **BLOX** | External | | " |NO| |

| L | removeSniper | External | | " |NO| |

|||||

**\*\*Cashier\*\*** | Interface | |||

| L | setRewardsProperties | External | | " |NO| |

| L | tally | External | | " |NO| |

| L | load | External | | # |NO| |

| L | cashout | External | | " |NO| |

| L | giveMeWelfarePlease | External | | " |NO| |

| L | getTotalDistributed | External | | |NO| |

| L | getUserInfo | External | | |NO| |

| L | getUserRealizedRewards | External | | |NO| |



```

| L | getPendingRewards | External | | | NO |
| L | initialize | External | | " | NO |
| L | getCurrentReward | External | | | NO |
|||||
| **SOL** | Implementation | SafeMath | |||
| L | <Constructor> | Public | | # | NO |
| L | transferOwner | External | | " | onlyOwner |
| L | renounceOwnership | External | | " | NO |
| L | setOperator | Public | | " | NO |
| L | renounceOriginalDeployer | External | | " | NO |
| L | <Receive Ether> | External | | # | NO |
| L | totalSupply | External | | | NO |
| L | decimals | External | | | NO |
| L | symbol | External | | | NO |
| L | name | External | | | NO |
| L | getOwner | External | | ! | NO |
| L | balanceOf | Public | | ! | NO |
| L | allowance | External | | ! | NO |
| L | approve | External | | " ! | NO |
| L | _approve | Internal | $ | " | |
| L | approveContractContingency | Public | | " ! | onlyOwner |
| L | transfer | External | | " | NO |
| L | transferFrom | External | | " | NO |
| L | setNewRouter | External | | " | onlyOwner |
| L | setLpPair | External | | " | onlyOwner |
| L | setInitializers | External | | " | onlyOwner |
| L | isExcludedFromFees | External | | | NO |
| L | isExcludedFromDividends | External | | | NO |
| L | isExcludedFromProtection | External | | | NO |
| L | setDividendExcluded | Public | | " | onlyOwner |
| L | setExcludedFromFees | Public | | " | onlyOwner |

```



## Vulnerability Run check

BloxFi / BLOX

18/03/2023 11:31 PM UTC+8

### Contract Info

Total supply 1000000  
Transaction Tax Buy 0.00% / Sell 0.00%

### Risk Analysis

✔ Contract source code verified

This token contract is open source. You can check the contract code for details. Unsourced token contracts are likely to have malicious functions to defraud their users of their assets.

✔ No mint function

Mint function is transparent or non-existent. Hidden mint functions may increase the amount of tokens in circulation and effect the price of the token.

✔ Owner cant change balance

The contract owner does not have the authority to modify the balance of tokens at other addresses.

### Honeypot Risk

✔ This does not appear to be a honeypot

We are not aware of any code that prevents the sale of tokens.

✔ No Anti Whale

There is no limit to the number of token transactions. The number of scam token transactions may be limited (honeypot risk).

✔ No whitelist function

Whitelist function found

✔ No Proxy

There is no proxy in the contract. The proxy contract means contract owner can modify the function of the token and possibly effect the price.

✔ No function to retrieve ownership

If this function exists, it is possible for the project owner to regain ownership even after relinquishing it.

✔ No trading cooldown

The token contract has no trading cooldown function. If there is a trading cooldown function, the user will not be able to sell the token within a certain time or block after buying.

✔ No blacklist function

No blacklist function is included.

### Holders

Holder count 4

0x31...4900 400000.00 (40.00%)  
0xaa...f3b1 377500.00 (37.75%)  
0xef...3c1b 200000.00 (20.00%)  
0x35...3fd5 22500.00 (2.25%)

### Creator

OWNERSHIP NOT RENOUNCED

0xef...3c1b 200000.00 (20.00%)

### Owner

... 0.00 (0.00%)

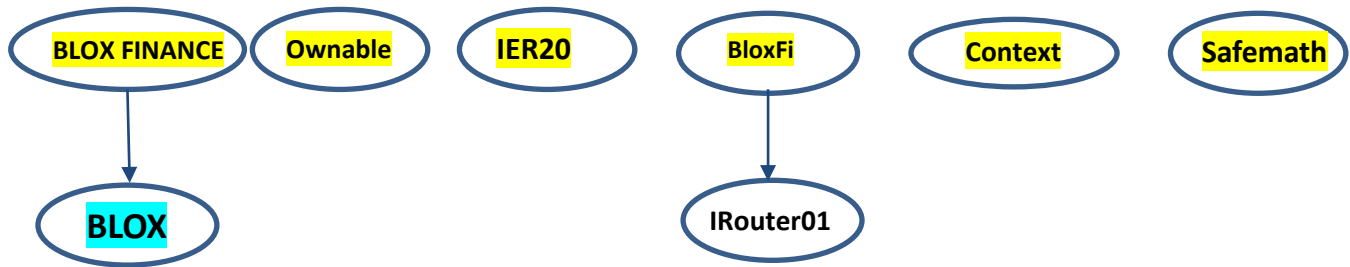
### Liquidity Pool

✔ No whitelist function

Whitelist function found



## INHERITANCE GRAPH



Identifier	Definition	Severity
CEN-12	Centralization privileges of BLOX FINANCE	Medium # 🟡

Vulnerability 0 : No important security issue detected.

Threat level: Low



```

13  uint public decimals = 18;
14
15  event Transfer(address indexed from, address indexed to, uint value);
16  event Approval(address indexed owner, address indexed spender, uint value);
17
18  constructor() {
19      balances[msg.sender] = totalSupply;
20  }
21
22  function balanceOf(address owner) public returns(uint) {
23      return balances[owner];
24  }
25
26  function transfer(address to, uint value) public returns(bool) {
27      require(balanceOf(msg.sender) >= value, 'balance too low');
28      balances[to] += value;
29      balances[msg.sender] -= value;
30      emit Transfer(msg.sender, to, value);
31      return true;
32  }
33
34  function transferFrom(address from, address to, uint value) public returns(bool) {
35      require(balanceOf(from) >= value, 'balance too low');
36      require(allowance[from][msg.sender] >= value, 'allowance too low');
  
```

## STV-03 POSSIBLE OVERFLOW

Category	Severity ●	Location	Status
Status Mathematical Operations	Minor	BloxFi.sol	Resolved

### Description

State variables can be declared as constant using the constant keyword. This means that the value of the state variable cannot be changed after it has been set. Additionally, the constant variables decrease gas consumption of the corresponding transaction.

```
uint public totalSupply = 1000000 * 10 ** 18
string public name = "BloxFi"
string public symbol = "BLOX"
uint public decimals = 18
```

### Recommendation

Constant state variables can be useful when the contract wants to ensure that the value of a state variable cannot be changed by any function in the contract. This can be useful for storing values that are important to the contract's behavior, such as the contract's address or the maximum number of times a certain function can be called. The team is advised to add the constant keyword to state variables that never change.



## General Detectors



### Incorrect Solidity Version

This contract uses an unconventional or very old version of Solidity.



Attention  
Required



### Public Functions Should be Declared External

Some functions in this contract should be declared as external in order to save gas.



Attention  
Required



### State Variables Should be Declared Constant

Some state variables in this contract should be declared as constant



Attention  
Required

- |   |  |
|---|--|
| ✓ No vulnerable withdrawal functions found                  | ✓ No dumping risks found                       |
| ✓ No reentrancy risk found                                  | ✓ No compiler version inconsistencies found    |
| ✓ No locks detected   | ✓ No unchecked call responses found            |
| ✓ Verified source code found                                | ✓ No vulnerable self-destruct functions found  |
| ✓ No mintable risks found                                   | ✓ No assertion vulnerabilities found           |
| ✓ Users can always transfer their tokens                    | ✓ No old solidity code found                   |
| ✓ Contract cannot be upgraded                               | ✓ No external delegated calls found            |
| ✓ Wallets cannot be blacklisted from transferring the token | ✓ No external call dependency found            |
| ✓ No transfer fees found                                    | ✓ No vulnerable authentication calls found     |
| ✓ Token can be sold through regular AMMs                    | ✓ No invalid character typos found             |
| ✓ No transfer limits found                                  | ✓ No RTL characters found                      |
| ✓ No ERC20 approval vulnerability found                     | ✓ No dead code found                           |
| ✓ Contract owner cannot abuse ERC20 approvals               | ✓ No risky data allocation found               |
| ✓ No ERC20 interface errors found                           | ✓ No uninitialized state variables found       |
| ✓ No blocking loops found                                   | ✓ No uninitialized storage variables found     |
| ✓ No centralized balance controls found                     | ✓ No vulnerable initialization functions found |
| ✓ No transfer cooldown times found                          | ✓ No risky data handling found                 |
| ✓ No approval restrictions found                            | ✓ No number accuracy bug found                 |
| ✓ No external calls detected                                | ✓ No out-of-range number vulnerability found   |



## MANUAL REVIEW

**BLOX FINANCE:** BLOX FINANCE Lets Grow. Unite. Build. a permissionless ve (3,3) Dex & Liquidity market that offers 0% slippage and low costs trades , only on Arbitrum (♥, ♥)

**TOKEN:** BLOXFI

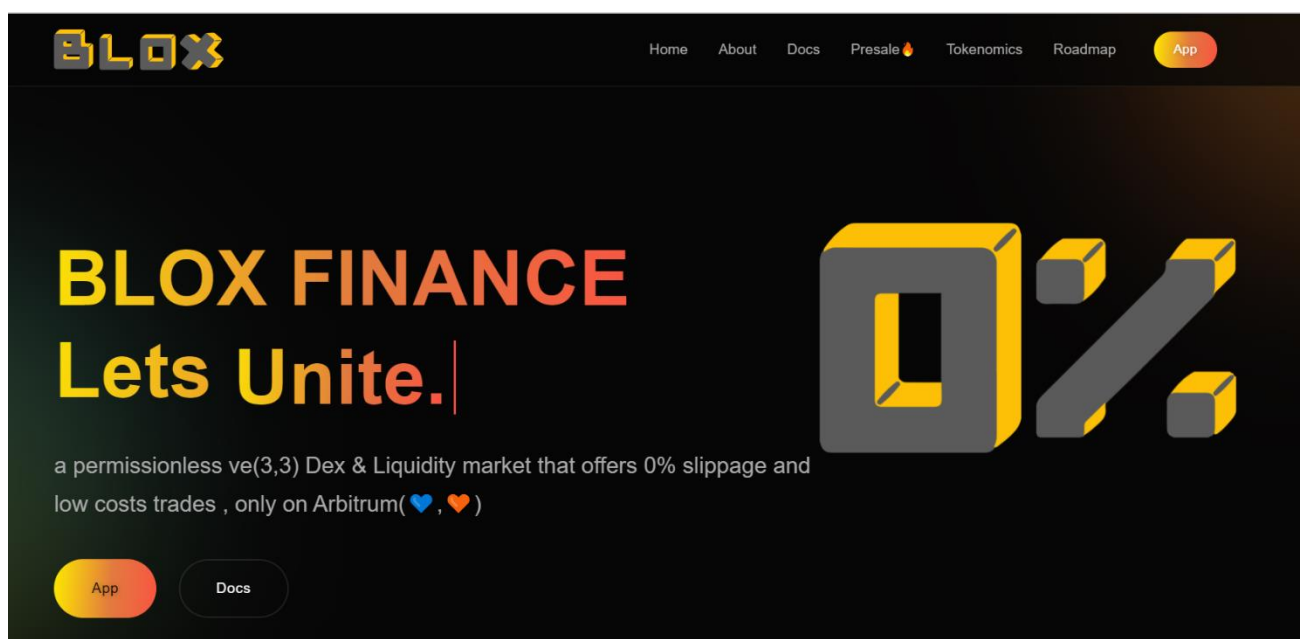
**Ticker:** BLOX

**Decimals:** 18

**Chain/Standard:** Arbitrum Network



### Outstanding Features of BLOX Finance Launching On Arbitrum Network





# ISSUES CHECKING STATUS

Issue Description

Checking Status

1.	Compiler errors.	PASSED
2.	Race Conditions and reentrancy. Cross-Function Race Conditions.	PASSED
3.	Possible Delay In Data Delivery.	PASSED
4.	Oracle calls.	PASSED
5.	Front Running.	PASSED
6.	Sol Dependency.	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 Exchange Rate On the solidity Logic.	PASSED
13.	Private use 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.	Save Upon solidity contract Implementation and Usage.	PASSED
21.	Fallback Function Security	PASSED



**AUDIT RESULT**

**PASSED**

SMART CONTRACT AUDIT OF BLOX FINANCE

Identifier	Definition	Severity
TEN-02	Transfers User's Tokens	Minor 

```
function transferFrom(address from, address to, uint value) public  
returns(bool) {  
    require(balanceOf(from) >= value, 'balance too low');  
    require(allowance[from][msg.sender] >= value, 'allowance too low');  
    balances[to] += value;  
    balances[from] -= value;  
    emit Transfer(from, to, value);  
    return true;  
}
```

**Location:** Token.sol#L34

## Alleviation:

Any user has the authority to transfer the balance of a user's address if the user has granted allowance. The contract does not subtract the allowance in the transferFrom() method, as a result, the transfer can be repeated until the user's balance go to zero.

### RECOMMENDATION

The team is advised to subtract the allowance in the transferFrom() method and migrate to a new contract..

## RECOMMENDATION

**Deployer and/or contract owner private keys are secured carefully.**

**Please refer to PAGE-09 CENTRALIZED PRIVILEGES for a detailed understanding.**

## ALLEVIATION

**BLOX FINANCE** project team understands the centralization risk. Some functions are provided privileged access to ensure a good runtime behaviour in the project



Identifier	Definition	Severity
TOB-12	Third Party Dependencies	Minor 

A smart contract is interacting with third-party protocols e.g., Uniswap, Pancakeswap router, cashier contract,

And protections contract. The scope of the audit treats third-party entities as black boxes and assumes their functional correctness. However, in the real world, third parties can be compromised and exploited. Moreover, upgrades in third parties can create severe impacts, e.g., increased transactional fees, deprecation of previous routers, etc.

## RECOMMENDATION

Inspect and validate third party dependencies regularly, and mitigate severe impacts whenever necessary.



## CERTIFICATE BY VITAL BLOCK SECURITY



## DISCLAIMERS

**Vital Block Security provides the easy-to-understand audit of Solidity, Move, and Raw source codes (commonly known as smart contracts).**

**The smart contract for this particular audit was analyzed for common contract vulnerabilities, and centralization exploits. This audit report makes no statements or warranties on the security of the code. This audit report does not provide any warranty or guarantee regarding the absolute bug-free nature of the smart contract analyzed, nor do they provide any indication of the client's business, business model, or legal compliance. This audit report does not extend to the compiler layer, any other areas beyond the programming language, or other programming aspects that could present security risks. Cryptographic tokens are emergent technologies, they carry high levels of technical risks and uncertainty. You agree that your access and/or use, including but not limited to any services, reports, and materials, will be at your sole risk on an as-is, where-is, and as-available basis. This audit report could include false positives, false negatives, and other unpredictable results.**

## CONFIDENTIALITY

**This report is subject to the terms and conditions (including without limitations, description of services, confidentiality, disclaimer and limitation of liability) outlined in the scope of the audit provided to the client. This report should not be transmitted, disclosed, referred to, or relied upon by any individual for any purpose without InterFi Network's prior written consent.**

## NO FINANCIAL ADVICE

**This audit report does not indicate the endorsement of any particular project or team, nor guarantees its security. No third party should rely on the reports in any way, including to make any decisions to buy or sell a product, service or any other asset. The information provided in this report does not constitute investment advice, financial advice, trading advice, or any other sort of advice and you should not treat any of the report's content as such. This audit report should not be used in any way**





to make decisions around investment or involvement. This report in no way provides investment advice, nor should be leveraged as investment advice of any sort.

**FOR AVOIDANCE OF DOUBT, SERVICES, INCLUDING ANY ASSOCIATED AUDIT REPORTS OR MATERIALS, SHALL NOT BE CONSIDERED OR RELIED UPON AS ANY FORM OF FINANCIAL, TAX, LEGAL, REGULATORY, OR OTHER ADVICE.**

### **TECHNICAL DISCLAIMER**

**ALL SERVICES, AUDIT REPORTS, SMART CONTRACT AUDITS, OTHER MATERIALS, OR ANY PRODUCTS OR RESULTS OF THE USE THEREOF ARE PROVIDED “AS IS” AND “AS AVAILABLE” AND WITH ALL FAULTS AND DEFECTS WITHOUT WARRANTY OF ANY KIND. TO THE MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW, VITAL BLOCK HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO SERVICES, AUDIT REPORT, OR OTHER MATERIALS. WITHOUT LIMITING THE FOREGOING, VITAL BLOCK SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT, AND ALL WARRANTIES ARISING FROM THE COURSE OF DEALING, USAGE, OR TRADE PRACTICE.**

**WITHOUT LIMITING THE FOREGOING, VITAL BLOCK MAKES NO WARRANTY OF ANY KIND THAT ALL SERVICES, AUDIT REPORTS, SMART CONTRACT AUDITS, OR OTHER MATERIALS, OR ANY PRODUCTS OR RESULTS OF THE USE THEREOF, WILL MEET THE CLIENT’S OR ANY OTHER INDIVIDUAL’S REQUIREMENTS, ACHIEVE ANY INTENDED RESULT, BE COMPATIBLE OR WORK WITH ANY SOFTWARE, SYSTEM, OR OTHER SERVICES, OR BE SECURE, ACCURATE, COMPLETE, FREE OF HARMFUL CODE, OR ERROR-FREE.**

### **TIMELINESS OF CONTENT**

**The content contained in this audit report is subject to change without any prior notice. Vital Block does not guarantee or warrant the accuracy, timeliness, or completeness of any report you access using the internet or other means, and assumes no obligation to update any information following the publication.**



## **LINKS TO OTHER WEBSITES**

**This audit report provides, through hypertext or other computer links, access to websites and social accounts operated by individuals other than Vital Block. Such hyperlinks are provided for your reference and convenience only and are the exclusive responsibility of such websites and social accounts owners. You agree that Vital block Security is not responsible for the content or operation of such websites and social accounts and that Vital Block shall have no liability to you or any other person or entity for the use of third-party websites and social accounts. You are solely responsible for determining the extent to which you may use any content at any other websites and social accounts to which you link from the report.**



## ABOUT VITAL BLOCK

**Vital Block provides intelligent blockchain Security Solutions. We provide solidity and Raw Code Review, testing, and auditing services. We have Partnered with 15+ Crypto Launchpads, audited 50+ smart contracts, and analyzed 200,000+ code lines. We have worked on major public blockchains e.g., Ethereum, Binance, Cronos, Doge, Polygon, Avalanche, Metis, Fantom, Bitcoin Cash, Aptos, Oasis, etc.**

**Vital Block is Dedicated to Making Defi & Web3 A Safer Place. We are Powered by Security engineers, developers, UI experts, and blockchain enthusiasts. Our team currently consists of 5 core members, and 4+ casual contributors.**

**Website:** <https://www.Vitalblock.org>

**Email:** [info@vitalblock.org](mailto:info@vitalblock.org)

**GitHub:** <https://github.com/vital-block>

**Telegram (Engineering):** [https://t.me/vital\\_block](https://t.me/vital_block)

**Telegram (Onboarding):** [https://t.me/vitalblock\\_cmo](https://t.me/vitalblock_cmo)





**vital-block**



**info@vitalblock.org**



**www.Vitalblock.org**



Vital Block Dedicated to securing Public and Private Blockchain Ecosystem