



Smart Contract Security Audit

Project: Alrihla

Aug 08, 2022



Contract Address

0x077f46b3f788817b144e04F1B5360e6EC3DB6814

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Disclaimer

The contents of this report reflect only the CRACKEN TECH audit team's understanding of the current progress and status of the security of the code audited, to verify the integrity of the code provided for the scope of this audit. You agree that your access and/or use, including but not limited to any associated services, products, protocols, platforms, content, and materials, will be at your sole risk. Given the size of the project, the findings detailed here are not to be considered exhaustive, and further testing and audit are recommended after the issues covered are fixed. We do not warrant, endorse, guarantee, or assume responsibility for any product or service advertised or offered by a third party through the product, any open source or third-party software, code, libraries, materials, or information linked to, called by, referenced by or accessible through the report, its content, and the related services and products, any hyperlinked websites, any websites or mobile applications appearing on any advertising, and we will not be a party to or in any way be responsible for monitoring any transaction between you and any third-party providers of products or services.

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The review does not address the compiler layer, any other areas beyond the programming language, or other programming aspects that could present security risks. If the audited source files are smart contract files, risks or issues introduced by using data feeds from off-chain sources are not extended by this review either.

Audit Review

The source code of the Alrihla Token was audited in order to acquire a clear impression of how the project was implemented. The Cracken Tech audit team conducted in-depth research, analysis, and scrutiny, resulting in a series of observations. A detailed list of each issue found, and vulnerabilities in the source code will be included in the audit report. The problems and potential solutions are given in this report, we will identify common sources for such problems and comments for improvement.

The auditing process will follow a routine as special considerations by Cracken:

- Review of the specifications, sources, and instructions provided to Cracken to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Cracken describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code is exercised when we run the test cases.
- Symbolic execution is analyzing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.

Project Review

Token Summary

Parameter	Result
Token Name	Alrihla
Token Symbol	Alrihla
Token Decimal	9
Total Supply	10,000,000,000
Platform	BSC
Buy Tax Fee	23%
Sell Tax Fee	23%
Contract Creation Date	Aug 08, 2022
Liquidity Status	Not Available
Liquidity Lockup Time	Not Available
Compiler Version	v0.8.4+commit.c7e474f2
Optimization	Yes with 200 runs
Contract Address	0x077f46b3f788817b144e04F1B5360e6EC3DB6814
Deployer Address	0xBbAc4617F405fEC601981c382F8664e74b6ca07d
Owner Address	0x8a510336Ab29Fe6E0f6557D6E73B2549a96B5Cb6

Source Code

CRACKEN was commissioned by Alrihla Token to perform an audit based on the following smart contract:

<https://bscscan.com/address/0x077f46b3f788817b144e04F1B5360e6EC3DB6814>





Smart Contract Vulnerability Checks

Vulnerability	Auto-Scan	Manual-Scan	Result
Unencrypted Private Data On-Chain	Complete	Complete	Low / No Risk
Code With No Effects	Complete	Complete	Low / No Risk
Message call with hardcoded gas amount	Complete	Complete	Low / No Risk
Hash Collisions with Multiple Variable Length Arguments	Complete	Complete	Low / No Risk
Unexpected Ether balance	Complete	Complete	Low / No Risk
Presence of unused variables	Complete	Complete	Low / No Risk
Right-To-Left-Override control character (U+202E)	Complete	Complete	Low / No Risk
Typographical Error	Complete	Complete	Low / No Risk
DoS With Block Gas Limit	Complete	Complete	Low / No Risk
Arbitrary Jump with Function Type Variable	Complete	Complete	Low / No Risk
Insufficient Gas Grieving	Complete	Complete	Low / No Risk
Incorrect Inheritance Order	Complete	Complete	Low / No Risk
Write to Arbitrary Storage Location	Complete	Complete	Low / No Risk
Requirement Violation	Complete	Complete	Low / No Risk
Missing Protection against Signature Replay Attacks	Complete	Complete	Low / No Risk
Weak Sources of Randomness from Chain Attributes	Complete	Complete	Low / No Risk
Authorization through tx. origin	Complete	Complete	Low / No Risk
Delegate call to Untrusted Callee	Complete	Complete	Low / No Risk





Vulnerability	Auto-Scan	Manual-Scan	Result
Use of Deprecated Solidity Functions	Complete	Complete	Low / No Risk
Assert Violation	Complete	Complete	Low / No Risk
Reentrancy	Complete	Complete	Low / No Risk
Unprotected SELF-DESTRUCT Instruction	Complete	Complete	Low / No Risk
Unprotected Ether Withdrawal	Complete	Complete	Low / No Risk
Outdated Compiler Version	Complete	Complete	Low / No Risk
Integer Overflow and Underflow	Complete	Complete	Low / No Risk
Function Default Visibility	Complete	Complete	Low / No Risk

Manual Code Review

Classification of Issues

Severity	Description
 High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
 Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
 Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
 Informational	A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
 High-Risk	0
 Medium-Risk	0
 Low-Risk	0
 Informational	1
Total	1

- **Informational:** Implementation of certain corrective actions or accepting the risk.

Set max buy / sell tax fee

Description:

The owner can set fees up to 25%

```
function setTaxFeePercent(uint256 taxFeeBps) external onlyOwner {
    _taxFee = taxFeeBps;
    require(
        _taxFee + _liquidityFee + _charityFee <= 10**4 / 4,
        "Total fee is over 25%"
    );
}

function setLiquidityFeePercent(uint256 liquidityFeeBps)
    external
    onlyOwner
{
    _liquidityFee = liquidityFeeBps;
    require(
        _taxFee + _liquidityFee + _charityFee <= 10**4 / 4,
        "Total fee is over 25%"
    );
}
```

Privileged Functions

onlyOwner

Function Name	Parameters	Visibility
decreaseAllowance	Address spender, unit256 subtractedValue	Public
excludeFromFee	Address account, bool excluded	Public
excludeFromReward	Address account	Public
includeInFee	Address account	Public
includeInReward	Address account	External
increaseAllowance	Address spender, unit256 addedValue	Public
renounceOwnership	None	Public
setLiquidityFeePercent	Unit256 liquidityFeeBps	External
setSwapAndLiquidityEnabled	Bool_enabled	External
setTaxFeePercent	Unit256 taxFeeBps	External

Contract Ownership

The contract ownership of Alrihla Token is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address 0xBbAc4617F405fEC601981c382F8664e74b6ca07d which can be viewed: [HERE](#)

The owner wallet has the power to call the functions displayed on the privileged functions list above, if the owner wallet is compromised these privileges could be exploited.

We recommend the team renounce ownership at the right timing if possible, or gradually migrate to a time lock with governing functionalities in respect of transparency and safety considerations.

Liquidity Overview

Liquidity Information

Parameter	Result
Pair Address	0xf19915a197f2a5000b3a1fa3b5ca4b4d7ca11900
Alrihla Reserves	0.00 Alrihla
BNB Reserves	0.00 BNB
Liquidity Value	\$0 USD
Liquidity Ownership	The token does not have liquidity at the moment of the audit

Tokenomics

Rank	Address	Quantity (Token)	Percentage
1	0x000000000000000000000000000000000000dead	9,107,500,000	91.0750%
2	0xbbac4617f405fec601981c382f8664e74b6ca07d	500,000,000	5.0000%
3	0xba58f2f5a217359904c33b5476f426ca4c4cb051	392,500,000	3.9250%

Social Media Check

Social Media Type	Link	Result
Website	No website	No website
Twitter	https://twitter.com/Alrihlacc/	Checked
Telegram	https://t.me/AlrihlaC/	Checked

Audit Conclusion

- The owner cannot pause trading
- The owner cannot mint new tokens
- The owner cannot blacklist users
- The owner cannot set the max transaction amount.
- The owner can change the buy/sell fee up to 25%.

AUDIT IS PASSED