CRACKEN

Smart Contract Security Audit

Project: Stake Token

May 20, 2022

Contract Address

0xe55bd75d7cE7bfDe26A347A748d080D3ACdA7FFE

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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.

All information provided in this report does not constitute financial or investment advice, nor should it be used to signal that any persons reading this report should invest their funds without sufficient individual due diligence regardless of the findings presented in this report.

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 Stake 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.
- Comparison to specification, which is the process of checking whether the code does what the specifications, sources, and instructions provided to Cracken describe.
- Test coverage analysis is the process of determining whether the test cases are actually 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	Stake Token
Token Symbol	STAKE
Token Decimal	18
Total Supply	750,000
Platform	BSC
Buy Tax Fee	13%
Sell Tax Fee	25%
Contract Creation Date	May 10, 2022
Liquidity Status	Locked
Liquidity Lockup Time	Feb 14, 2023
Compiler Version	v0.8.12+commit.f00d7308
Optimization	Yes with 200 runs
Contract Address	0xe55bd75d7cE7bfDe26A347A748d080D3ACdA7FFE
Deployer Address	0x3cc6a3fa5becf00b585e4575537f03d24891bd70
Owner Address	0x3cc6a3fa5becf00b585e4575537f03d24891bd70

Source Code

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

https://bscscan.com/address/0xe55bd75d7cE7bfDe26A347A748d080D3ACdA7FFE

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.
Information	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
Information	0
Total	0

Privileged Functions

onlyOwner

Function Name	Parameters	Visibility
renounceOwnership	none	public
transferOwnership	address newOwner	public
setEnableAntiBot	_enable bool	external
setPool	_pool(address)	external
setAllTaxes	_transferTax uint256, _sell uint256, _buy uint256	external
setCustomTax	_contract address, _tax uint256	external
setCustomTaxStatus	_contract address, _status bool	external
excludeAddress	_address (address), _all (bool), _isReceive (bool)	public
excludeMultiple	_addresses (address), _all (bool), _isReceive _all (bool)	external
removeExclusions	_addresses (address), _all (bool), _isReceive _all (bool)	public
removeMultiple	_addresses (address), _all (bool), _isReceive _all (bool)	public
updateVault	_vault (address), _isContract (bool)	external
mint	amount (uint256), onlyPool	public
addLiquidityPair	_pair (address)	external

Contract Ownership

The contract ownership of Stake 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 0x3cc6a3fa5becf00b585e4575537f03d24891bd70 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	0x316b917ab20e268BbB1cEB1Ae3a27efCBa8da06f
STAKE Reserves	72,407 STAKE
BNB Reserves	299.00 BNB
Liquidity Value	$107,984 USD

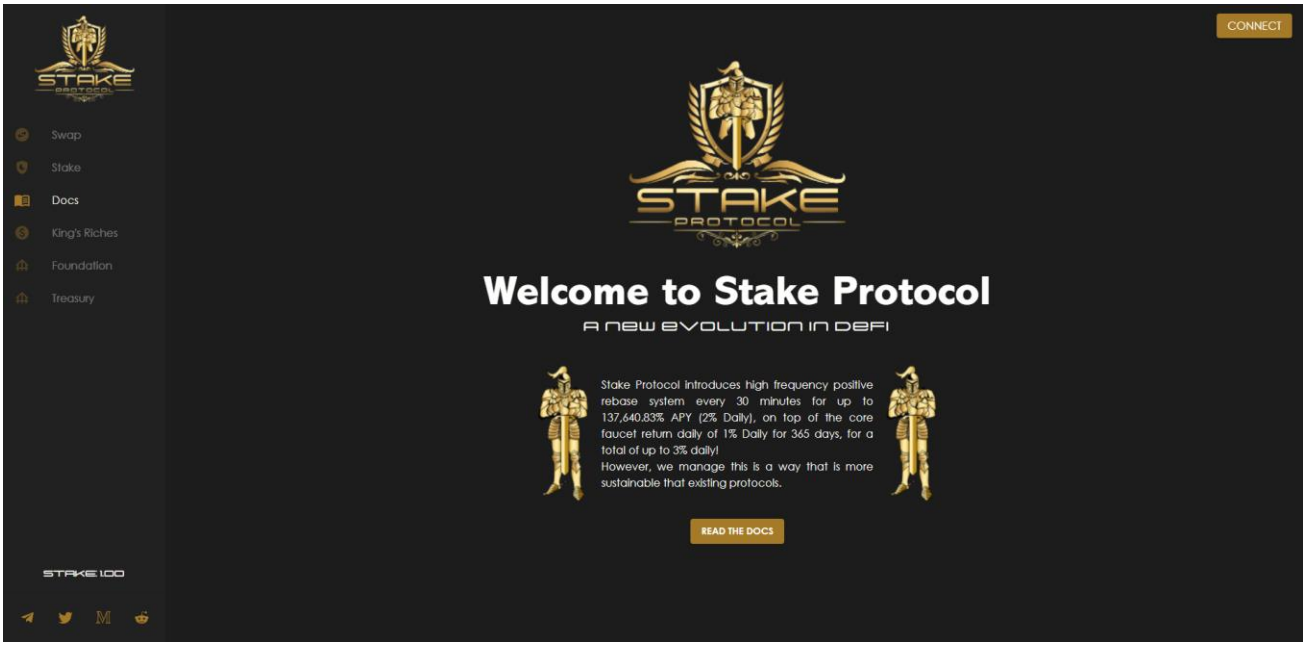
Tokenomics

Rank	Address	Quantity (Token)	Percentage
1	PinkSale: PinkLock	320,000	42.6667%
2	0x87ae4bc578fb20879176377ec6ee4d7bf01d0329	105,000	14.0000%
3	0x26984bbb8db557538bd02997ade0dc22cdc0b95d	58,086	7.7448%

Social Media Check

Social Media Type	Link	Result
Website	https://stakeprotocol.app/	Checked
Twitter	https://twitter.com/Stake_Protocol	Checked
Telegram	https://t.me/StakeProtocol	Checked
Facebook	https://twitter.com/Stake_Protocol	Not match
Reddit	https://www.reddit.com/u/StakeProtocol	Checked

Website Review



- Mobile Friendly
- Contains no code errors
- SSL Secured
- No spelling errors

Audit Conclusion

- The owner cannot set max tx amount
- The owner cannot pause trading
- The mint function was founded but has limited the mint to 5% of the total supply
- No high-risk vulnerabilities were found
- The owner can charge fees up to 25%